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Received October 15, 1917
Issued May 17, 1918

U. S. DEPARTMENT OF AGRICULTURE

WEATHER BUREAU

CHARLES F. MARVIN, Chief

MONTHLY WEATHER REVIEW

SUPPLEMENT NO. 8

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AEROLOGY No. 4

FREE-AIR DATA AT DREXEL AEROLOGICAL STATION JULY, AUGUST, SEPTEMBER, OCTOBER, NOVEMBER, DECEMBER, 1916

BY

THE AEROLOGICAL DIVISION, WILLIS RAY GREGG, in Charge

WASHINGTON
GOVERNMENT PRINTING OFFICE
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SUPPLEMENTS TO THE MONTHLY WEATHER REVIEW.

During the summer of 1913 the system of issuing publications of the Department of Agriculture was changed and simplified so as to eliminate numerous independent series of Bureau bulletins. In accordance with this plan, among other changes, the series of quarto bulletins—lettered from A to Z—and the octavo bulletins—numbered from 1 to 44—formerly issued by the U. S. Weather Bureau have come to their close.

Contributions to meteorology such as would have formed bulletins are authorized to appear hereafter as Supplements to the MONTHLY WEATHER REVIEW. (Memorandum from the Office of the Assistant Secretary, May 18, 1914.)

These supplements comprise those more voluminous studies which appear to form permanent contributions to the science of meteorology and of weather forecasting, as well as important communications relating to the other activities of the U. S. Weather Bureau. They appear at irregular intervals as occasion may demand, and contain approximately 100 pages of text, charts, and other illustrations. Subscribers to the MONTHLY WEATHER REVIEW receive the Supplements without extra charge. Copies may be procured at the prices indicated below by addressing the Superintendent of Documents, Government Printing Office, Washington, D. C.

SUPPLEMENTS PUBLISHED.

No. 1. Types of storms of the United States and their average movements. By E. H. Bowie and R. H. Weightman. Washington, 1914. 37 p. 114 ch. 4°. Price, 25 cents. (W. B. 538.)

No. 2. I. Calendar of the leafing, etc., of the common trees of the eastern United States. By G. N. Lamb. 19 p. 4 figs. II. Phenological dates, etc., recorded by T. Mikesell at Wauseon, Ohio. By J. Warren Smith. 73 p. 2 figs. Washington, 1915. 4°. Price, 25 cents. (W. B. 558.)

No. 3. (*Aerology No. 1.*) Sounding balloon ascensions at Fort Omaha, Nebr.: May 8, 1915, etc. By W. R. Blair and others. 67 p. 23 figs. Washington, 1916. 4°. Price, 25 cents. (W. B. 592.)

No. 4. Types of anticyclones of the United States and their average movements. By E. H. Bowie and R. H. Weightman. Washington, 1917. 25 p. 7 figs. 73 ch. 4°. Price, 25 cents. (W. B. 600.)

No. 5. (*Aerology No. 2.*) Free-air data at Drexel Aerological Station: January, February, and March, 1916. By W. R. Blair and others. Washington, 1917. 59 p. 6 figs. 4°. Price, 25 cents. (W. B. 603.)

No. 6. Relative humidities and vapor pressures over the United States, including a discussion of data from recording hair hygrometers for a period of about 5 years. By P. C. Day. Washington, 1917. 61 p. 7 figs. 34 charts. 4°. Price, 25 cents. (W. B. 609.)

No. 7. (*Aerology No. 3.*) Free-air data at Drexel Aerological Station: April, May, and June, 1916. By W. R. Blair and others. Washington, 1917. 51 p. 4 figs. 4°. Price, 25 cents. (W. B. 619.)

No. 8. (*Aerology No. 4.*) Free-air data at Drexel Aerological Station: July, August, September, October, November, and December, 1916. By W. R. Gregg and others. Washington, 1918. 111 p. 12 figs. 4°. Price, .. cents. (W. B. 642.)

CORRIGENDA.

Supplement No. 5 (Aerology No. 2).—

Page 3, Table 1: Make departures plus from 3,000 to 4,500 meters in January; from 1,250 to 4,250 meters in February; and from 1,250 to 3,250 and at 4,000 meters in March.

Page 14: Time for January 17, 1916 (No. 3), should be p. m. instead of a. m.

Page 15: In record of January 18, 1916, series (No. 6), the wind velocity at 750 meters in the ascent should be 15.3 instead of 51.3 meters per second.

Page 18: Time for January 21, 1916 (No. 2), should be p. m. instead of a. m.

Page 36: Time for February 21, 1916 (No. 3), should be p. m. instead of a. m.

Page 40: Time for March 1, 1916 (No. 1), should be p. m. instead of a. m.

FREE-AIR DATA AT DREXEL AEROLOGICAL STATION, JULY TO DECEMBER, 1916, INCLUSIVE.

By the AEROLOGICAL DIVISION, WILLIS RAY GREGG, Meteorologist in charge.

GENERAL STATEMENT.

During the six months July to December, 1916, inclusive, kite flights were made at Drexel on all but 10 days. On these 10 days, 7 of which occurred in July and August, the surface wind was too light to fly kites, although repeated efforts were made to do so. In all, 267 observations were obtained and the average altitude reached was 2,852 meters. The number of flights and their mean altitudes for the different months are given in Table 1.

TABLE 1.—*Monthly distribution of and mean altitudes attained in kite flights during the period, July to December, 1916, inclusive.*

	July.	August.	September.	October.	November.	December.
Number of flights	39	42	49	47	42	48
Mean altitude (*meters*)	2,726	3,111	2,775	2,873	3,029	2,631

SPECIAL NOTES ON KITE FLIGHTS.

By the Official in Charge and others at Drexel.

August 18–19 series; No. 5.—During series of night kite flights it has been noticed that, on clear nights when the wind is from a southerly direction, a small secondary maximum surface temperature occurs between 10 p. m. and 2 a. m. This phenomenon has been observed a number of times by eye readings made at the reel house. An inspection of the thermograph sheets from Drexel shows that the phenomenon occurs on many nights when the weather is clear and the wind from a southerly direction.

October 4.—The wind direction veered 180°, from north through east to south, from the surface to an altitude of 2,000 meters. In general, surface northerly winds turn counter-clockwise with altitude. In this case the surface winds seem to have been due to a HIGH northwest of the station, and the winds at higher levels to a LOW north of Wisconsin. As is usually the case with surface northerly or northeasterly winds, the winds for a kilometer or more above the surface were light, and it is rare that kites can be flown at all under such conditions. These remarks apply also to the record of October 22, 1916, in which the winds veered with increasing altitude from northeast at the surface to west-southwest at higher levels.

October 30.—West-northwest wind on descent at 2:11 p. m., west-southwest and southwest above and below. Later surface wind changed to west-northwest. It is believed that the change took place at about 1,200 meters first and later near the ground.

November 7.—This flight was made between heavy showers. Through rifts in the clouds near the ground, which moved from the east-northeast, two higher layers of clouds could be seen—St.Cu. from the south-southeast and Ci.Cu. from the southwest. The lower clouds were dense, but at times the disk of the sun was visible through rifts. The rain seemed to come from clouds near the ground. The shift in the wind direction was most abrupt about 400 meters above the ground. The day preceding this flight was remarkable for clear, dry weather and strong south-southwest winds aloft.

November 9.—Solar halo, 22° radius, with brilliant parhelia 23° distant from the sun; also short upper tangent arcs and a circumzenithal arc were observed between 9 and 10 a. m. The right parhelion had a tail 8° in length, the left a tail of 4°. The circumzenithal arc was about 10° in extent.

December 20.—Wind shifted clockwise with altitude in ascent, counter-clockwise in descent. At the surface it was north throughout and of light velocity. A HIGH, north of the station in the early part of the flight, moved westward; hence, the change aloft from north-northeast to north-northwest winds.

DREXEL AND MOUNT WEATHER FREE-AIR TEMPERATURES.

In Table 2 is given a comparison of free-air temperatures at Drexel, Nebr., and at Mount Weather, Va. Positive departures are indicated at all levels in July; up to 3,250 meters in August, and above 1,000 meters in November. Departures in October are small. In September and December they are negative; also, at some levels in August, October, and November. The means at Mount Weather are fairly reliable; those at Drexel, based on only one year's observations, can not be accepted as normals, but are of interest in that they show mean conditions for this particular year. In Table 3, however, are given mean temperatures for November and December, based on observations in 1915 and 1916. The big variation in the values for the two years indicates that further observations are necessary before reliable normals can be determined.

TABLE 2.—*Comparison of mean temperatures, °C., for July, August, September, October, November, and December, 1916, at Drexel Aerological Station and Mount Weather, Va.*

Altitude, sea-level.	JULY.			AUGUST.			SEPTEMBER.		
	Drexel, 1916.	Mount Weather, 5-year mean.	Departures.	Drexel, 1916.	Mount Weather, 5-year mean.	Departures.	Drexel, 1916.	Mount Weather, 5-year mean.	Departures.
meters.	°C.	°C.	°C.	°C.	°C.	°C.	°C.	°C.	°C.
396	[a] 28.8	.....	.....	[b] 24.5	.....	.....	[c] 19.5	.....	.....
500	27.9	[g] 22.8	+5.1	23.7	[g] 21.5	+2.2	18.5	[g] 19.0	−0.5
750	26.3	21.1	+5.2	22.3	19.9	+2.4	16.1	17.5	−1.4
1000	24.4	19.3	+5.1	21.3	18.3	+3.0	14.3	16.1	−1.8
1250	22.3	17.6	+4.7	20.1	16.8	+3.3	13.0	14.8	−1.8
1500	20.3	15.9	+4.4	18.8	15.3	+3.5	11.9	13.5	−1.6
1750	18.3	14.3	+4.0	17.1	13.9	+3.2	10.5	12.5	−2.0
2000	16.3	12.7	+3.6	15.4	12.5	+2.9	8.9	11.4	−2.5
2250	14.4	11.2	+3.2	13.7	11.2	+2.5	7.3	10.3	−3.0
2500	12.7	9.7	+3.0	11.6	9.8	+1.8	5.7	9.0	−3.3
2750	10.8	8.3	+2.5	9.6	8.4	+1.2	4.1	7.6	−3.5
3000	8.7	6.8	+1.9	7.6	6.8	+0.8	2.6	6.2	−3.6
3250	6.8	5.1	+1.7	5.7	5.2	+0.5	1.2	4.6	−3.4
3500	4.9	3.5	+1.4	3.8	3.8	0.0	− 0.2	3.1	−3.3
3750	3.3	1.8	+1.5	2.0	2.3	−0.3	− 1.7	1.5	−3.2
4000	1.7	0.1	+1.6	0.5	0.7	−0.2	− 3.8	− 0.2	−3.6
4250	−0.1	−1.6	+1.5	−1.1	−0.9	−0.2	− 6.1	− 1.9	−4.2
4500	−1.8	−3.2	+1.4	−3.0	−2.7	−0.3	− 8.2	− 3.7	−4.5
4750	−3.5	−4.8	+1.3	−4.9	−4.8	−0.1	− 9.8	− 5.8	−4.0
5000	.....	.....	.....	.....	.....	.....	−11.0	− 6.6	−4.4

Altitude, sea-level.	OCTOBER.			NOVEMBER.			DECEMBER.		
396	[d] 11.9	.....	.....	[e] 4.3	.....	.....	[f] − 6.2	.....	.....
500	11.3	[g] 11.7	−0.4	4.3	[g] 5.1	−0.8	− 6.1	[g] − 0.3	−5.8
750	9.9	10.3	−0.4	3.7	3.9	−0.2	− 6.1	− 1.2	−4.9
1000	8.9	9.0	−0.1	3.2	2.8	+0.4	− 5.2	− 1.9	−3.3
1250	8.5	9.0	+0.5	2.8	1.7	+1.1	− 4.6	− 2.3	−2.3
1500	8.1	7.1	+1.0	2.2	0.7	+1.5	− 5.3	− 2.6	−2.7
1750	7.2	6.3	+0.9	1.3	− 0.2	+1.5	− 6.2	− 3.0	−3.2
2000	6.2	5.5	+0.7	0.1	− 0.9	+1.0	− 7.1	− 3.7	−3.4
2250	5.1	4.6	+0.5	− 1.0	− 1.8	+0.8	− 8.2	− 4.6	−3.6
2500	3.7	3.5	+0.2	− 2.2	− 2.9	+0.7	− 9.3	− 5.6	−3.7
2750	2.3	2.3	0.0	− 3.5	− 4.2	+0.7	−10.5	− 6.8	−3.7
3000	0.7	1.0	−0.3	− 4.8	− 5.5	+0.7	−11.6	− 8.1	−3.5
3250	−0.9	−0.4	−0.5	− 6.0	− 6.8	+0.8	−12.6	− 9.5	−3.1
3500	−2.6	−1.9	−0.7	− 7.2	− 8.3	+1.1	−13.8	−10.9	−2.9
3750	−4.1	−3.4	−0.7	− 8.2	− 9.9	+1.7	−14.9	−12.3	−2.6
4000	−5.5	−4.7	−0.8	− 9.1	−11.4	+2.3	−15.8	−13.6	−2.2
4250	−6.5	−6.1	−0.4	−10.1	−12.9	+2.8	−17.5	−15.1	−2.4
4500	−7.2	−7.5	+0.3	−11.1	−14.5	+3.4	−18.9	−16.7	−2.2
4750	−8.6	−9.1	+0.5	−12.2	−16.1	+3.9	−19.6	−18.2	−1.4
5000	.....	.....	.....	−13.4	−17.5	+4.1	.....	.....	.....
5250	.....	.....	.....	−14.5	−18.7	+4.2	.....	.....	.....
5500	.....	.....	.....	−15.6	−20.1	+4.5	.....	.....	.....
5750	.....	.....	.....	−16.7	−21.5	+4.8	.....	.....	.....

[a] Actual 24-hour mean temperature, 26.9° C.
[b] Actual 24-hour mean temperature, 23.3°.
[c] Actual 24-hour mean temperature, 17.5°.
[d] Actual 24-hour mean temperature, 11.1°.
[e] Actual 24-hour mean temperature, 3.5°.
[f] Actual 24-hour mean temperature, −7.2°.
[g] At surface, 526 meters above sealevel.

TABLE 3.—*Comparison of free-air temperatures at Drexel Aerological Station in November and December, 1915 and 1916.*

Altitude.	NOVEMBER.			DECEMBER.		
	1915	1916	Mean.	1915	1916	Mean.
meters.	°C.	°C.	°C.	°C.	°C.	°C.
396	6.7	4.3	5.5	− 2.0	− 6.2	− 4.1
500	6.5	4.3	5.4	− 2.4	− 6.1	− 4.2
750	5.9	3.7	4.8	− 1.8	− 6.1	− 4.0
1000	5.7	3.2	4.4	− 1.5	− 5.2	− 3.4
1250	5.5	2.8	4.2	− 1.5	− 4.6	− 3.0
1500	5.2	2.2	3.7	− 2.2	− 5.3	− 3.8
1750	4.7	1.3	3.0	− 2.9	− 6.2	− 4.6
2000	3.7	0.1	1.9	− 3.5	− 7.1	− 4.3
2250	2.5	− 1.0	0.8	− 4.6	− 8.2	− 6.4
2500	1.2	− 2.2	− 0.5	− 5.7	− 9.3	− 7.5
2750	− 0.3	− 3.5	− 1.9	− 6.9	−10.5	− 8.7
3000	− 1.9	− 4.8	− 3.4	− 8.1	−11.6	− 9.8
3250	− 3.4	− 6.0	− 4.7	− 9.0	−12.6	−10.8
3500	− 5.1	− 7.2	− 6.2	−10.0	−13.8	−11.9
3750	− 6.9	− 8.2	− 7.6	−11.0	−14.9	−13.0
4000	− 8.3	− 9.1	− 8.7	−12.5	−15.8	−14.2
4250	− 9.1	−10.1	− 9.6	−13.7	−17.5	−15.6
4500	−10.7	−11.1	−10.9	−15.1	−18.9	−17.0
4750	−12.4	−12.2	−12.3	−16.3	−19.6	−18.0
5000	−13.8	−13.4	−13.6	−17.8	.....	.....
5250	.....	−14.5	.....	.....	.....	.....
5500	.....	−15.6	.....	.....	.....	.....
5750	.....	−16.7	.....	.....	.....	.....

DIURNAL SERIES OBSERVATIONS.

During the six months 12 series of observations of diurnal variations were made. The number of observations and the average altitudes reached in each series are shown in Table 4.

TABLE 4.—*Number of observations and average altitudes reached in diurnal series, July to December, 1916, inclusive.*

Dates of series.	Number of flights.	Mean altitudes attained.
1916.		*meters.*
July 18–19	6	3,255
July 25–26	8	3,704
Aug. 4–5	7	3,394
Aug. 18–19	8	3,277
Sept. 19–20	8	3,651
Sept. 25–26	8	3,216
Oct. 16–17	7	3,193
Oct. 26–27	8	3,122
Nov. 13–14	6	3,749
Nov. 27–28	5	3,847
Dec. 4–5	6	3,598
Dec. 26–27	10	2,084

The duration of each series and the temperatures observed are shown in figures 1 to 12. Weather conditions, except pressure distribution, and all other observed data may be found in Tables 5 to 10.

The series of August 18–19 was interrupted by a thunderstorm shortly after midnight of the 19th, and could not be resumed until the middle of the afternoon, because of light winds. Although incomplete, this series is of interest in that it shows a condition that invariably obtains when flights are made in a southerly wind during the night, viz, a marked increase in the wind velocity from the surface to an altitude of from 400 to 600 meters above the surface and a decrease at all higher levels. This condition is most pronounced between 10 p. m. and midnight but is apparent to some extent also from 6 p. m. to 2 a. m. Other dates on which this phenomenon has been observed are: March 28–29, 1916 (Supplement No. 5); April 28–29, May 5–6, May 25–26, and June 28–29, 1916 (Supplement No. 7); and July 24, July 25–26, August 4–5, August 18–19, September 19–20, September 25–26, and December 14, 1916 (this Supplement). In all cases a fairly well-developed LOW was approaching from the northwest, west, or southwest.

Pressures and winds during the series flights.

At the beginning of the series of July 18–19, a HIGH (1,024 mb.) was central off the North Pacific coast and a LOW (995 mb.) slightly north of the Dakotas. By the evening of the 18th a secondary LOW, accompanied by rain and thunderstorms, has formed over eastern South Dakota and caused the interruption of the series. During these first five flights the winds, under the influence of the northern LOW, were southeasterly at the surface, veering to southwesterly aloft. The last flight of the series was made in the afternoon of the 19th. By this time the North Pacific HIGH had diminished in energy (1,017 mb.) and had moved eastward to the Dakotas. The winds during this flight were therefore north-northeast at the surface, backing to north and north-northwest at higher levels.

During the series of July 25–26 low pressure (about 1,005 mb.), with no well-defined center, prevailed over the Rocky Mountains and Great Plains States. A ridge of relatively high pressure (about 1,020 mb.) extended from the region of the Great Lakes southward to the Gulf States. Winds were southerly at all altitudes throughout the series. This is one of the most successful series thus far made, there being no interruptions and the lowest flight being to an altitude of 3,284 meters.

The series of August 4–5 was interrupted from 11 p. m. of the 4th to 5 a. m. of the 5th, on account of light winds at the surface. As indicated in the flights just before and after this period, the winds immediately above the surface were strong enough for flying, but it was impossible to get the kites into them. There were no well-defined HIGHS or LOWS during this series, but pressure was relatively low (about 1,005 mb.) west and northwest of the station, with somewhat higher pressure (about 1,020 mb.) over the States immediately east of the Mississippi River. Winds were south-southwesterly, shifting to southerly at the surface; southwesterly, shifting to south-southwesterly aloft.

At the beginning of the series of August 18–19 low pressure (998 mb.) was central over western North Dakota and high pressure (1,023 mb.) over the Middle Atlantic States. The HIGH remained nearly stationary and the LOW diminished in energy and moved eastward to northern Minnesota. The winds under the influence of this LOW were southerly to southwesterly at all levels.

The series of September 19–20 consisted of 8 excellent records, only one being to a height of less than 3,000 meters. Throughout this series high pressure (about 1,025 mb.) covered the Eastern States. A LOW (1,005 mb.) central north of the Dakotas moved eastward to northern Michigan. With the eastward movement of this LOW, surface winds veered from south to north-northwest; those aloft, from west-southwest to west-northwest.

During the series of September 25–26 high pressure (1,020 mb.) covered the Eastern States. A pronounced LOW (997 mb.), central north of Montana and the Dakotas, remained practically stationary. A secondary LOW, which more directly affected weather conditions at Drexel, moved during the series from Utah to central Nebraska and increased in energy from 1,010 mb. to 995 mb. The winds were south-southwest at the surface and west-southwest at higher levels.

On account of light winds both aloft and at the surface, from 1 a. m. to noon of October 17, the 5th and 6th flights of the series of October 16–17 were to low altitudes only. With few exceptions this condition is found whenever an area of high pressure passes to the north of the observing station during the series. The surface winds veer successively from northwest through north and east to southeast and have low velocities; the winds to a height of a kilometer or more above the surface are in the meantime light and of variable direction. This condition has been repeatedly observed at Drexel, at Mount Weather, Va.,[1] and at Blue Hill, Mass.[2]

At the beginning of the series under consideration a HIGH (1,024 mb.) was central over the North Pacific States and a well-developed LOW (994 mb.) over northern Minnesota. By evening of the 16th they had changed but little in intensity, but had moved eastward, the LOW to the Upper Lakes and the HIGH to North Dakota. This HIGH continued to move eastward and by evening of the 17th was central over the Upper Lakes. In the meantime a LOW (1,004 mb.) appeared over Montana and moved southeastward to South Dakota. The winds aloft veered from west-northwest to north-northwest, while the surface winds veered from west-southwest to north-northeast; and backed from north-northwest to

[1] Bulletin of the Mount Weather Observatory, Washington, 1913, 6: 130, 160, 178.

[2] *Rotch & Palmer.* Charts of the atmosphere for aeronauts and aviators, New York, 1911. 84.

west-southwest, while the surface winds veered from east to south.

The series of October 26–27 was interrupted from midnight to 2 a. m. of the 27th, by breaking of the kite-line due to high winds aloft; and from 6 a. m. to noon, because of light northeasterly winds at the surface. At the beginning of this series pressure was low (1,000 mb.) north of the Dakotas and high (1,025 mb.) over Texas. The HIGH moved northeastward to the Ohio Valley. The LOW diminished in energy and moved eastward to the St. Lawrence Valley. A second LOW (1,008 mb.) appeared north of Montana on the evening of the 26th and remained nearly stationary during the remainder of the series. Winds aloft were west-northwesterly, backing to southwesterly near the end of the series. At the surface they were southwesterly, veering through west, north, and east to southerly.

The series of November 13–14 was made with a pronounced HIGH (1,045 mb.) central over Idaho. This HIGH remained practically stationary, but diminished slightly in intensity. Relatively low pressure (about 1,010 mb.) was central over the Eastern States. The surface pressure gradient at Drexel was small and the wind comparatively light, the result being that some of the flights extended over a greater length of time than is usually the case. Wind directions were west-northwesterly, both at the surface and at higher levels, except during the night, when they were west-southwesterly.

The first flight of the series of November 27–28 is the highest thus far made at Drexel, the greatest altitude reached being 5,753 meters. The series was interrupted from 9 p. m. of the 27th to 4 a. m. of the 28th, because of light surface winds, due to small pressure gradient. Low pressure (1,005 mb.) was central over eastern Nebraska on the morning of the 27th, diminished in intensity and moved northeastward to the Upper Lakes. Another and more pronounced LOW (985 mb.) also diminished in energy and passed eastward to Winnipeg. Relatively high pressure (about 1,025 mb.) covered the Pacific Coast States. Surface winds were north-northwest, shifting suddenly to south shortly after midnight and veering later through southwest to northwest. Aloft the winds were westerly throughout the series.

At the beginning of the series of December 4–5 a well-developed LOW (983 mb.) was central north of Montana. This LOW diminished in intensity and moved eastward to eastern Ontario. A moderate HIGH (1,020 mb.), central over Lower California, moved eastward to the Great Plains States. The winds at the surface were west-southwesterly until after the passage of the northern LOW, when they became west-northwesterly. Aloft they were west-northwest throughout the series.

During the series of December 26–27 a well-developed LOW (990 mb.) moved northward and later eastward to the Upper Lakes. Relatively high pressure (about 1,020 mb.) was central over the Plains States on the 27th. Winds at the surface were west-northwest, backing early on the 27th to west. Aloft they were south-southwest, veering to west-southwest and west. The occurrence of west winds at the surface accompanied by south-southwest winds at higher levels, is rare. In this case the combination is probably due to a very small HIGH near and to the southwest of the station. This doubtless controlled the surface winds, whereas those at higher levels were under the influence of the near-by LOW.

Complete data for the six months are given in Tables 5 to 10.

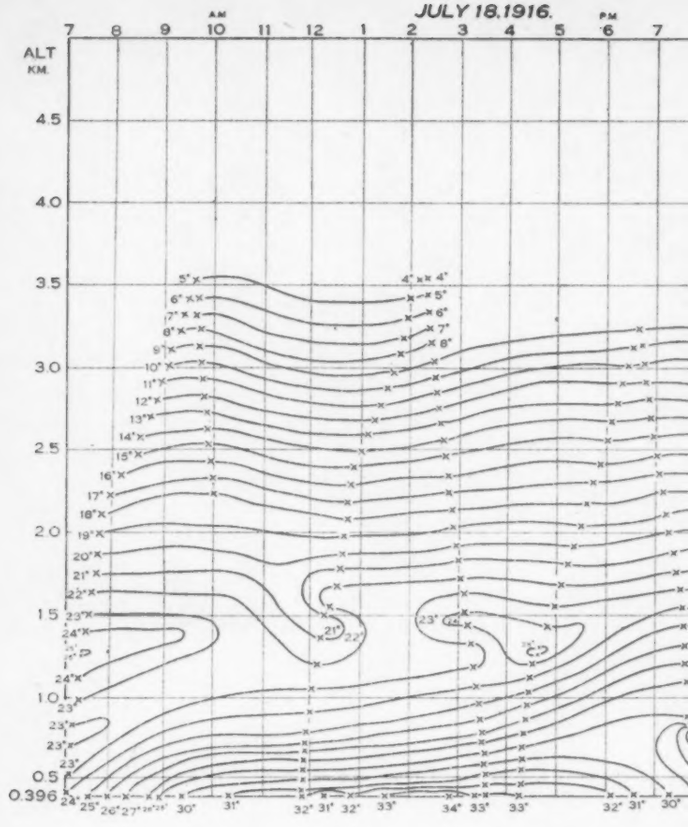


FIG. 1. Free-air tempe

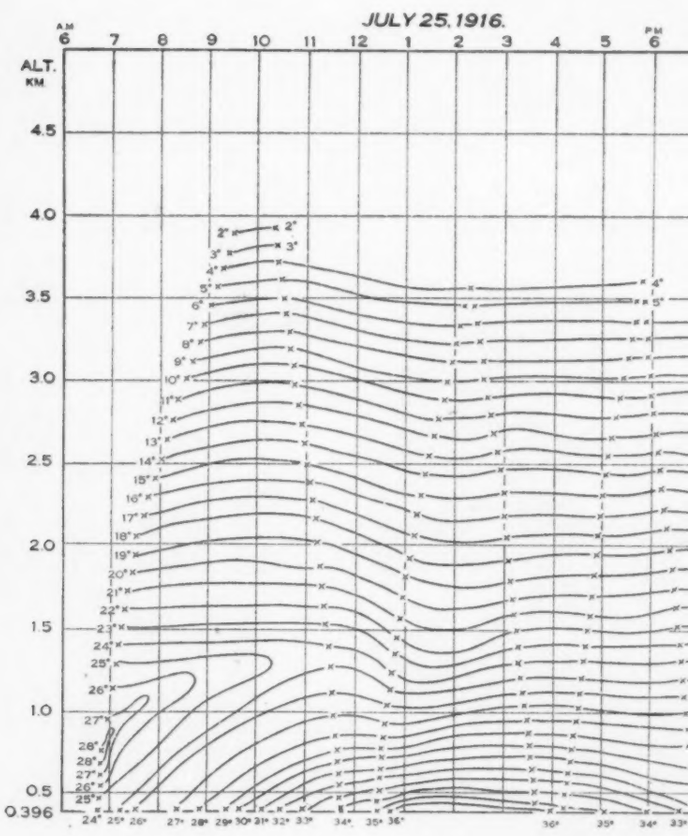
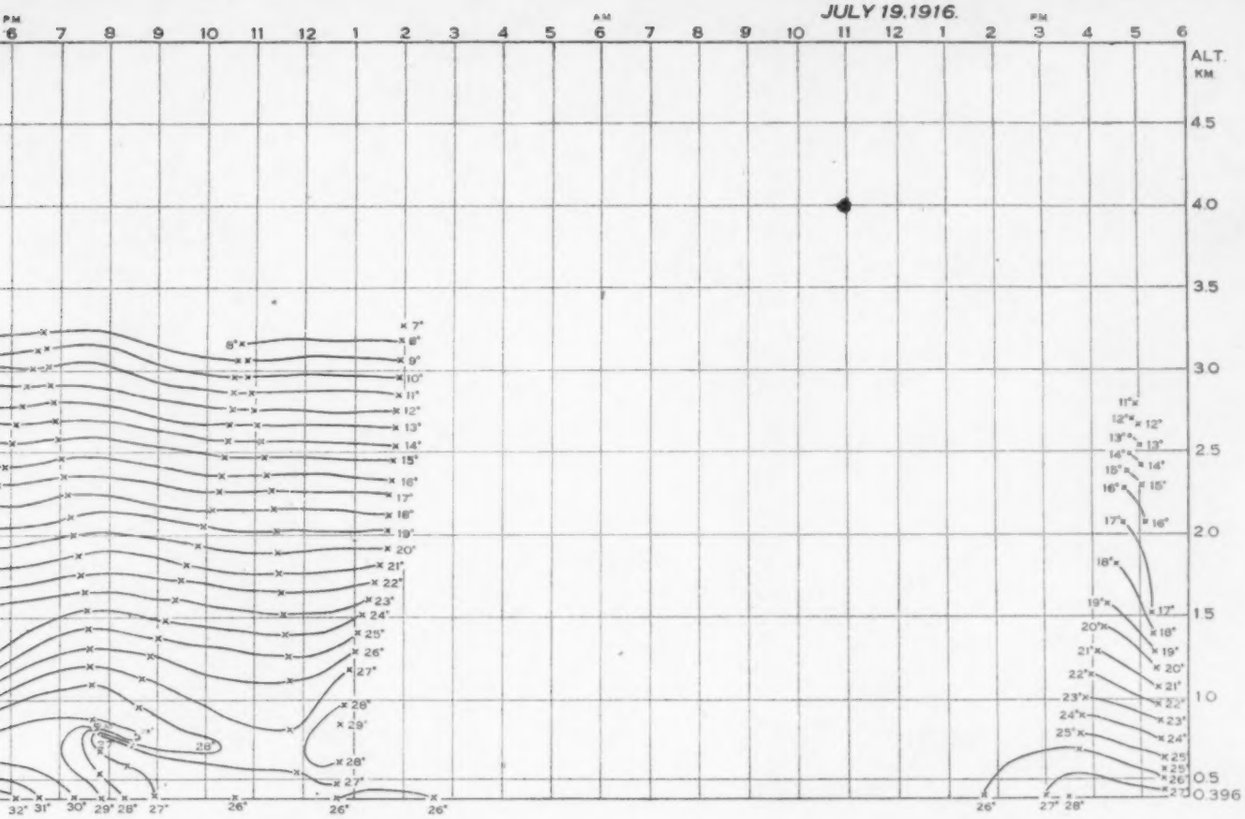
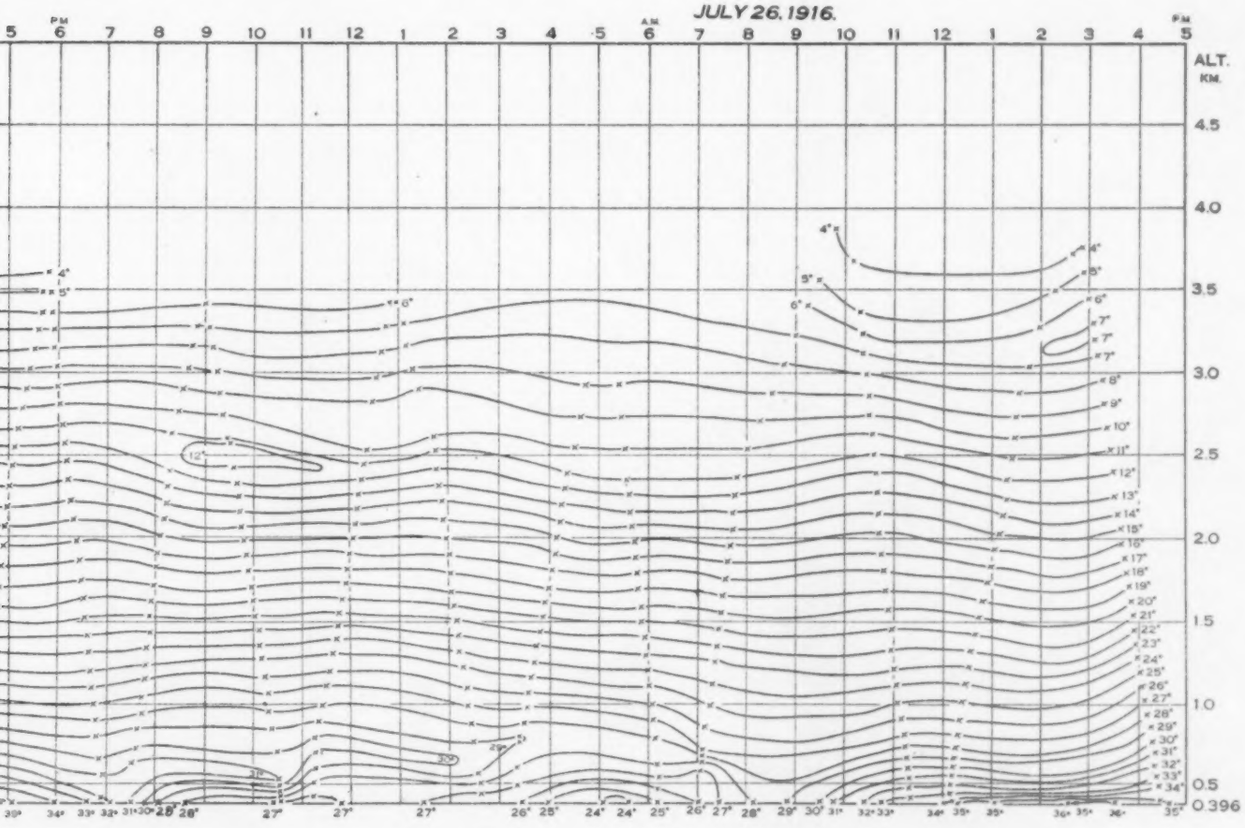


FIG. 2. Free-air tempe



-air temperatures, °C, above Drexel Aerological Station, observed July 18–19, 1916.



e-air temperatures, °C, above Drexel Aerological Station, observed July 25–26, 1916.

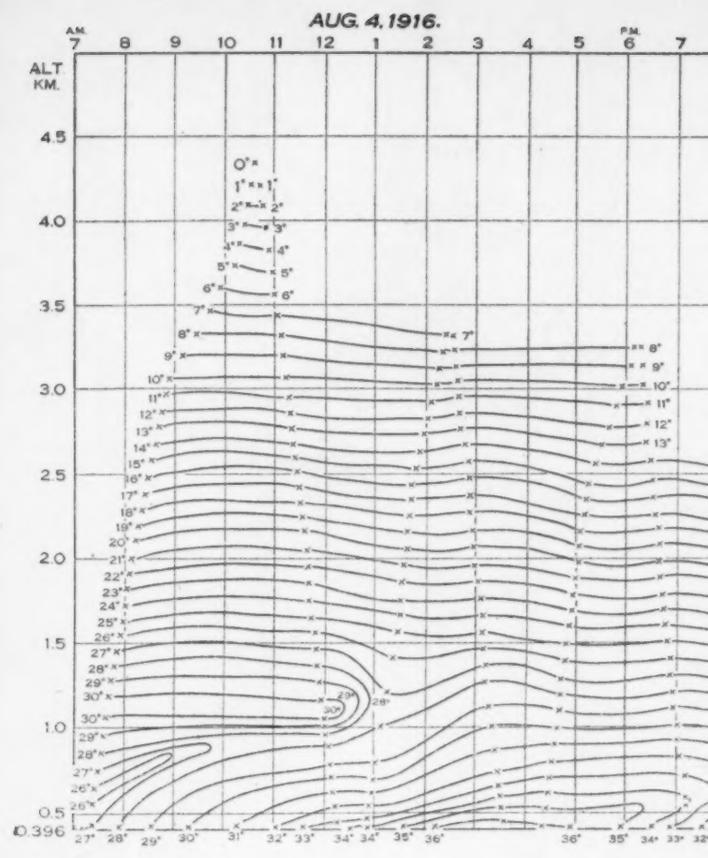


FIG. 3. Free-air tem

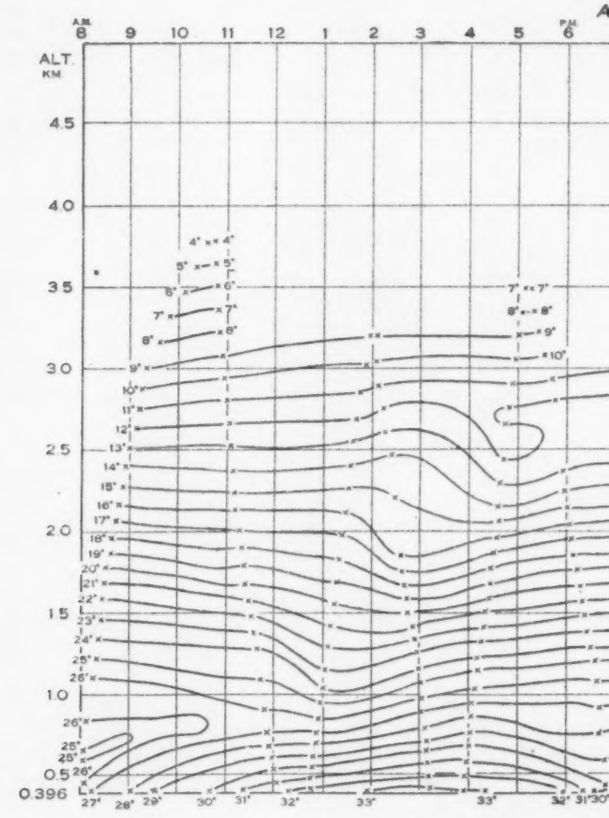
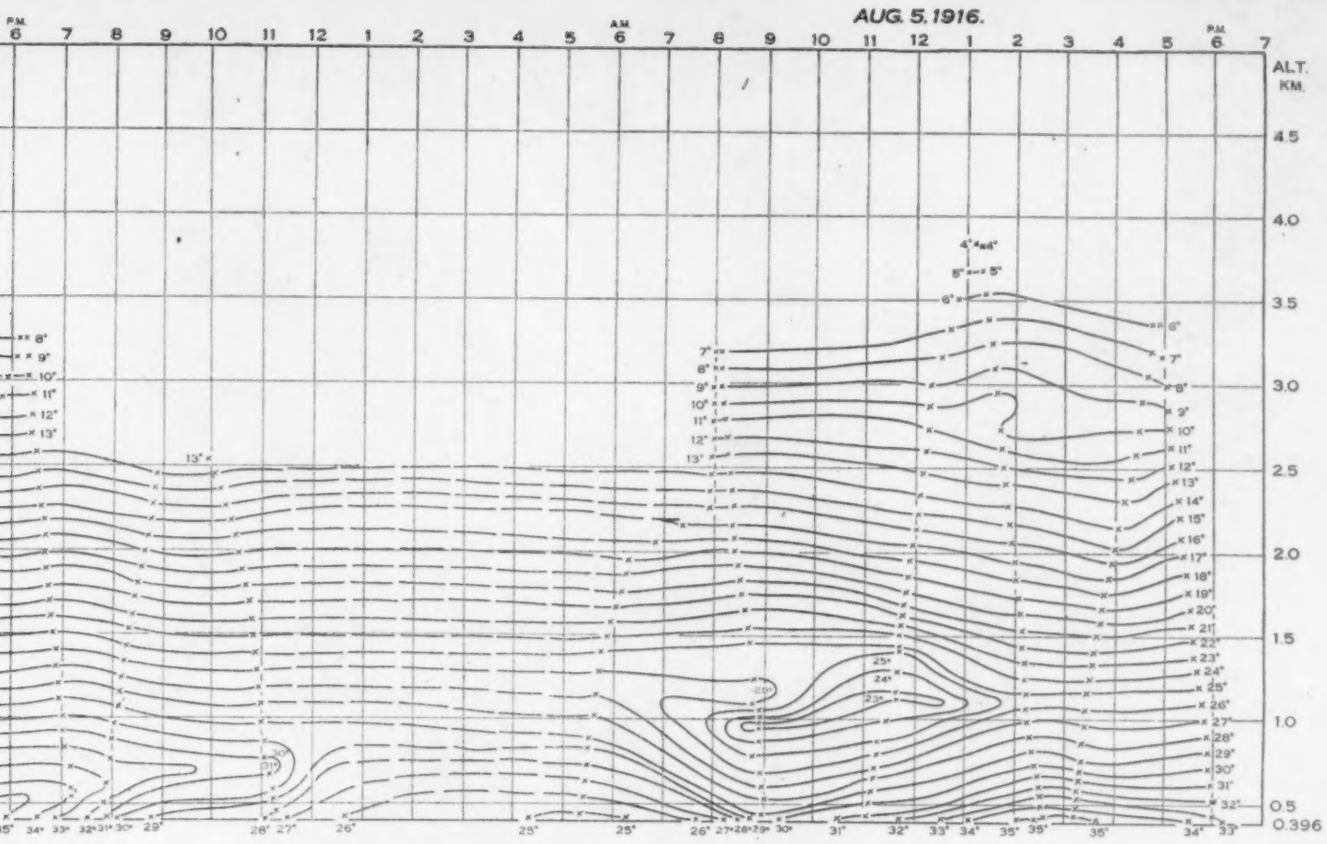
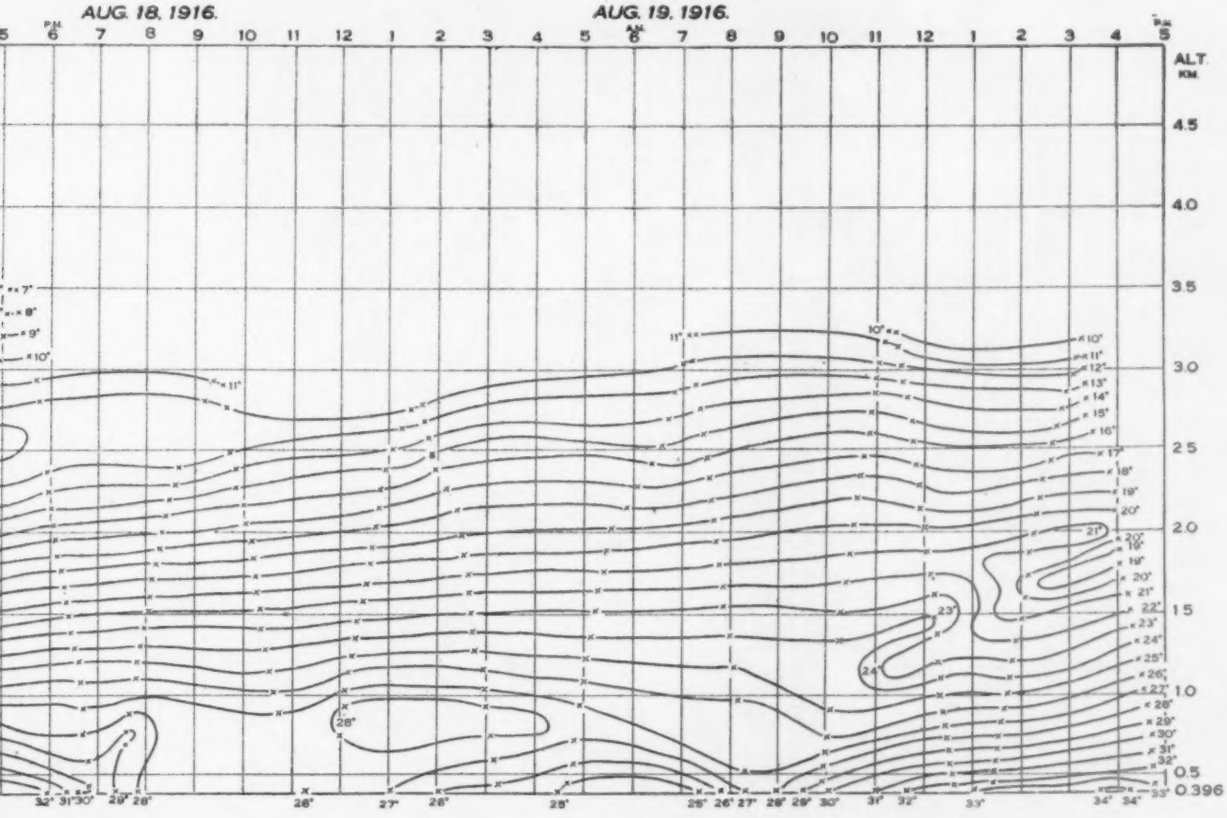


FIG. 4. Free-air tem



ee-air temperatures, °C, above Drexel Aerological Station, observed August 4–5, 1916.



ee-air temperatures, °C, above Drexel Aerological Station, observed August 18–19, 1916.

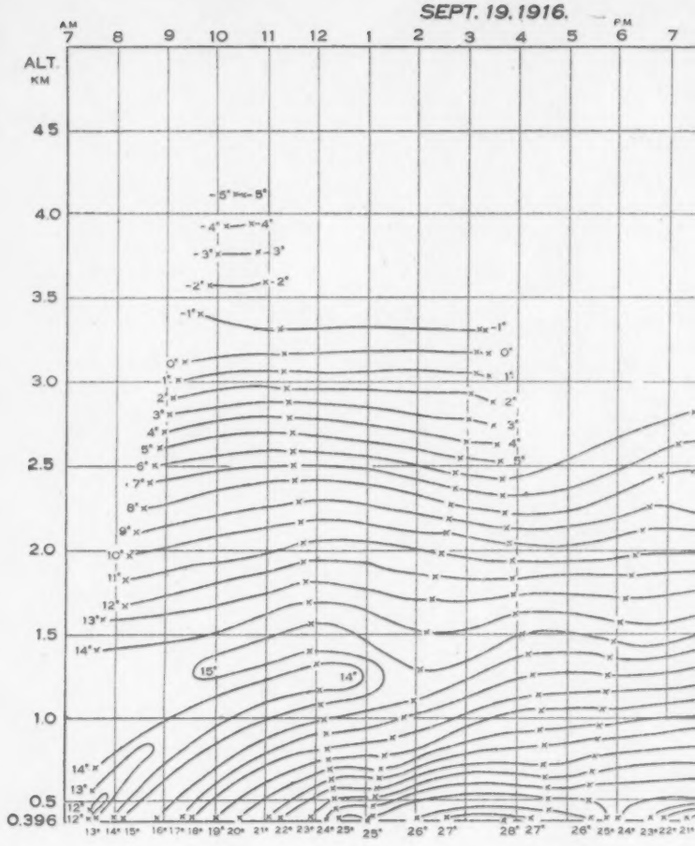


FIG. 5. Free-air temp

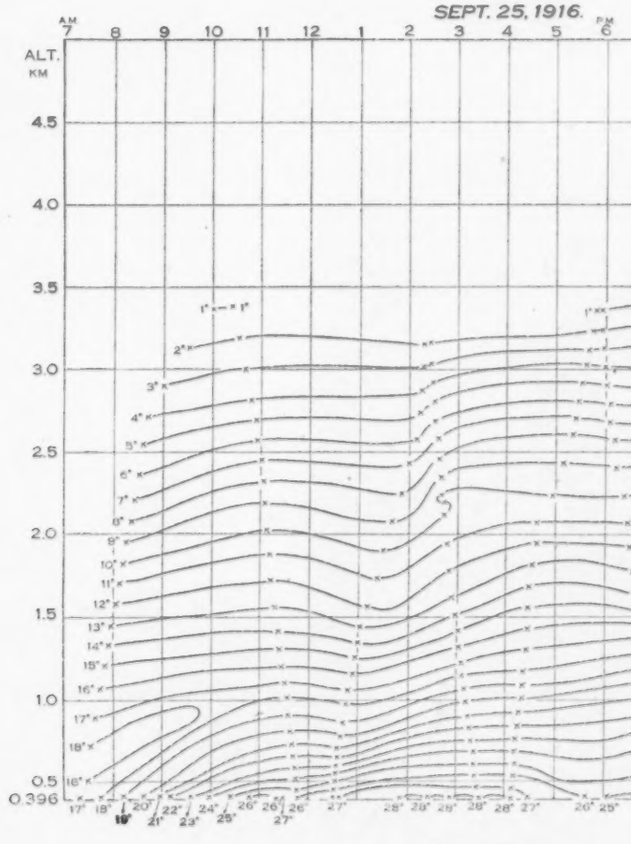
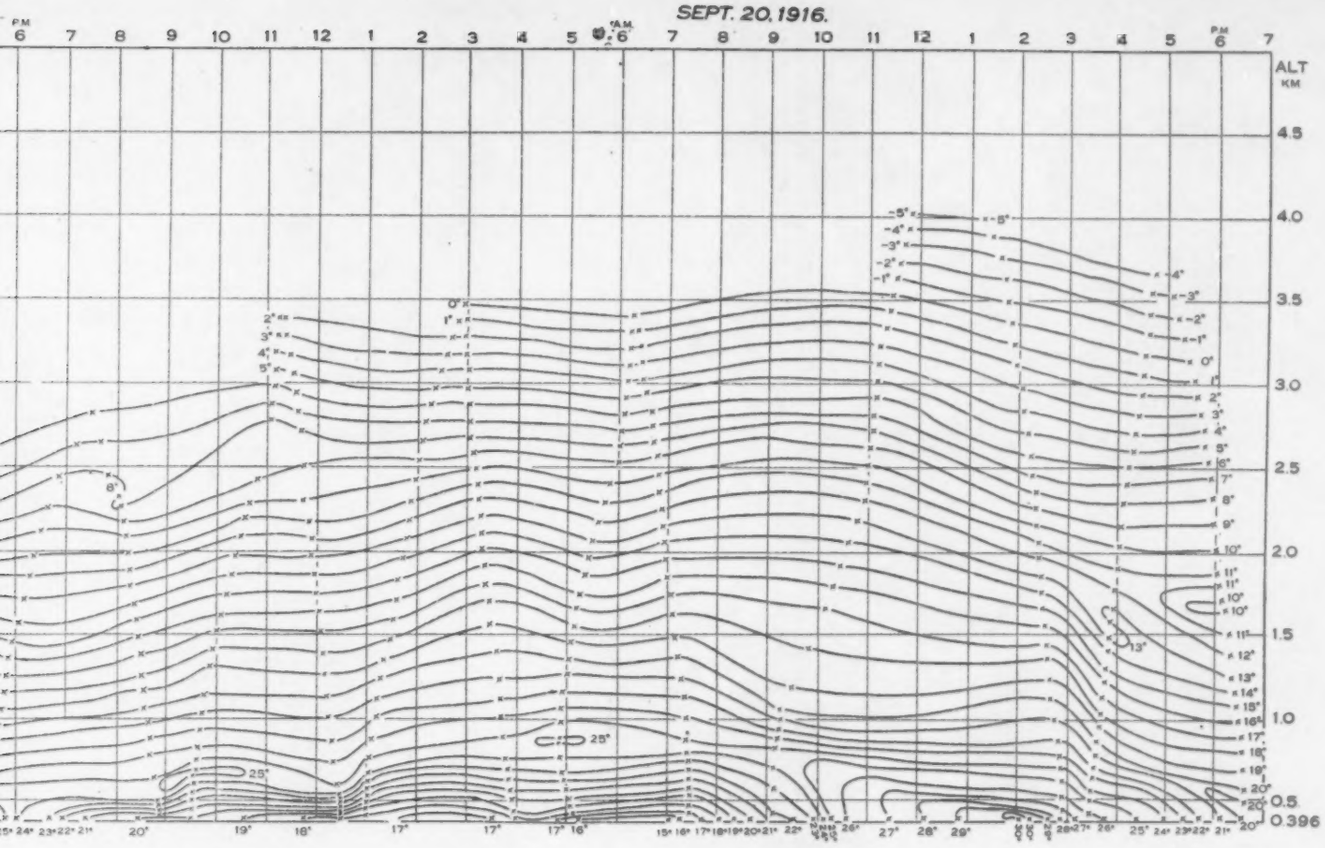
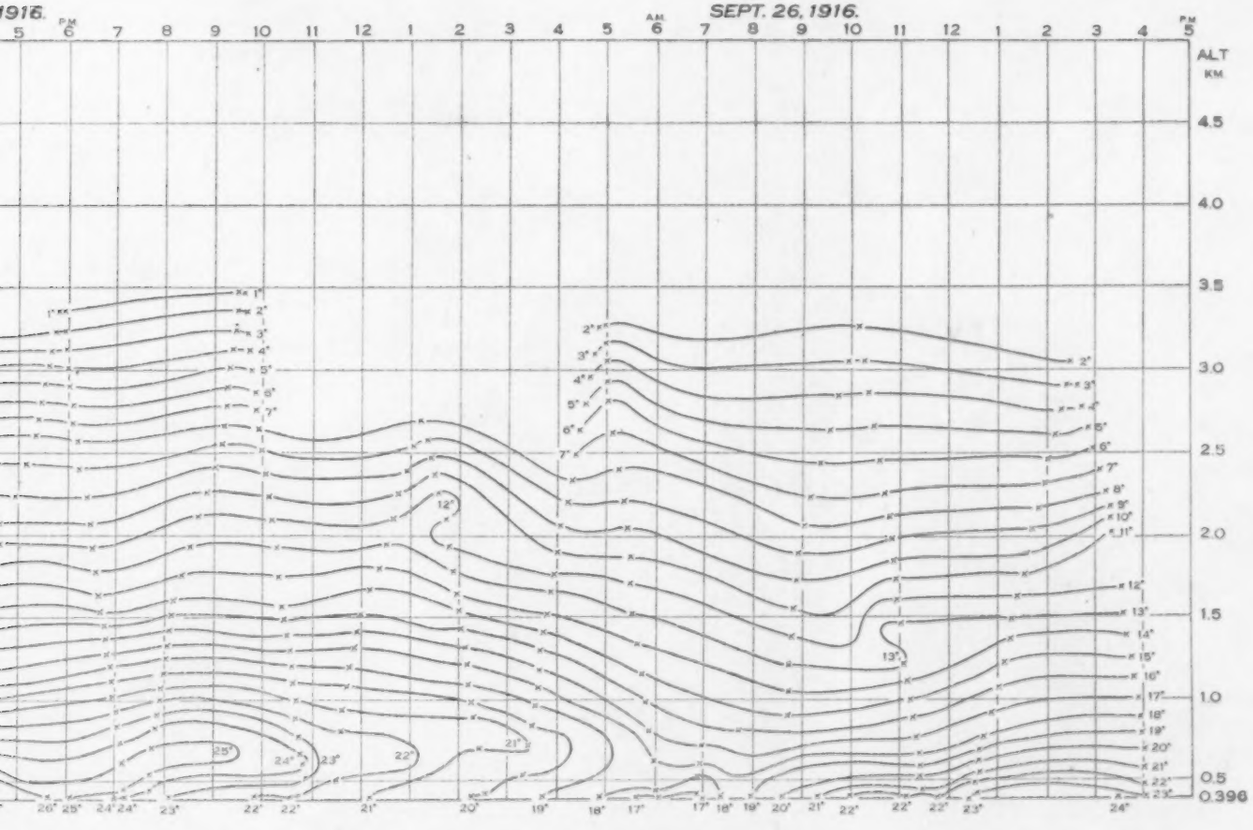


FIG. 6. Free-air temp



e-air temperatures, °C, above Drexel Aerological Station, observed September 19–20, 1916.



e-air temperatures, °C, above Drexel Aerological Station, observed September 25–26, 1916.

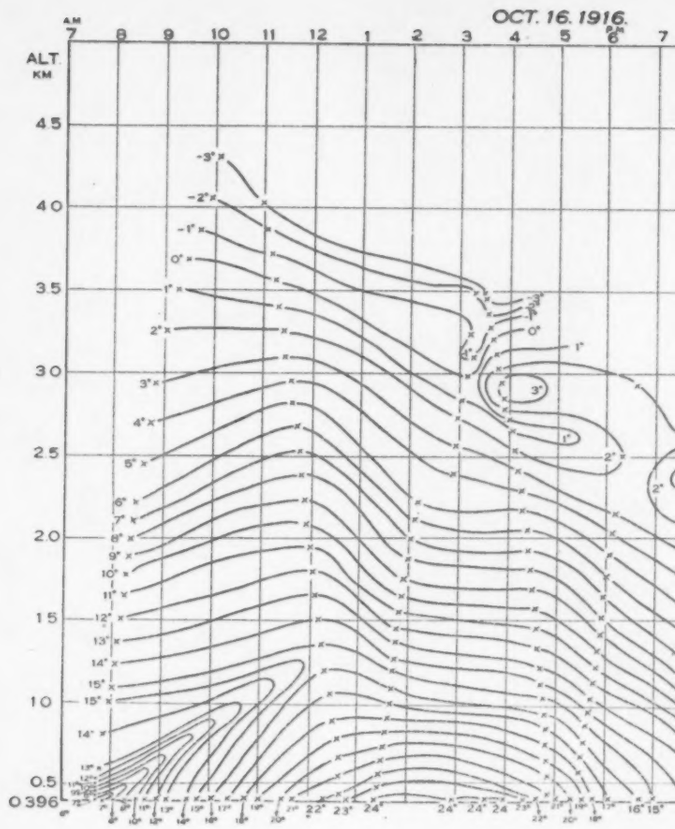


FIG. 7. Free-air temper

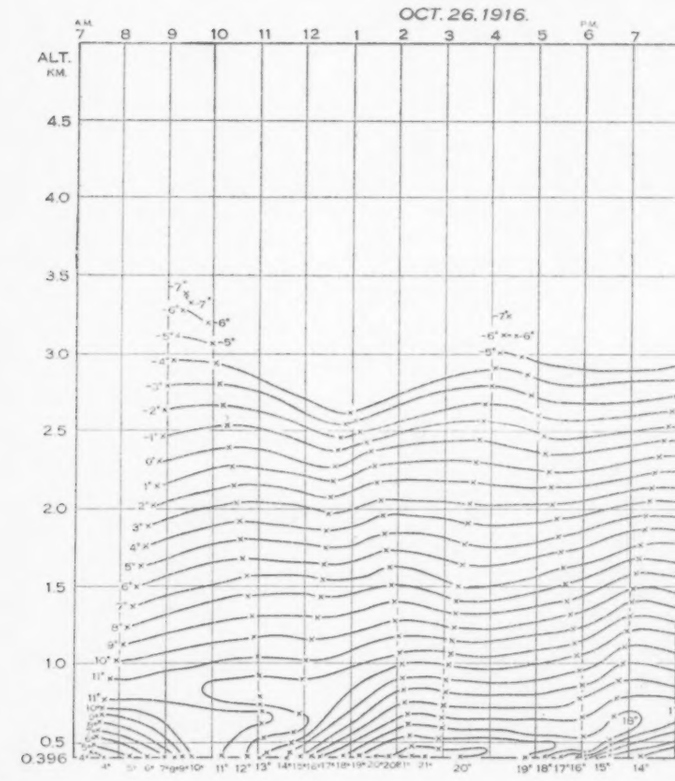
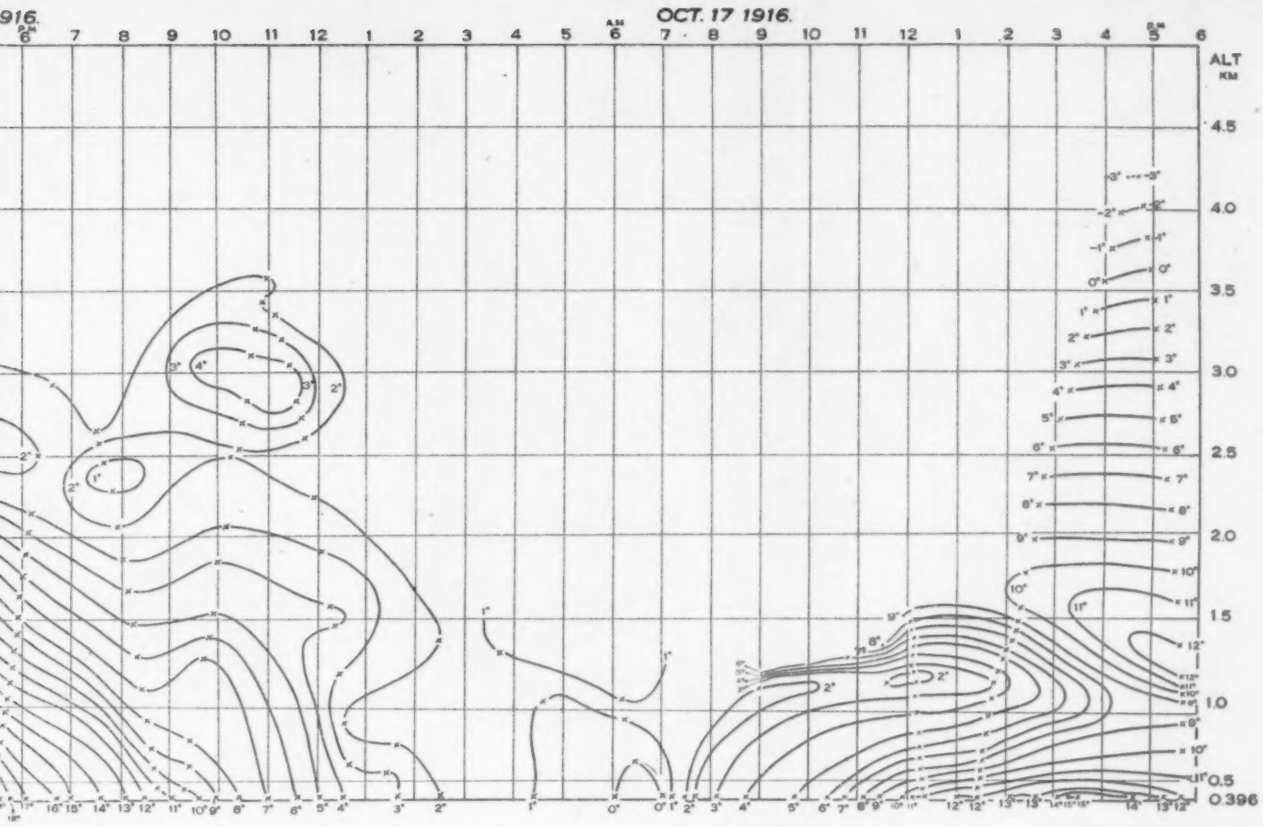
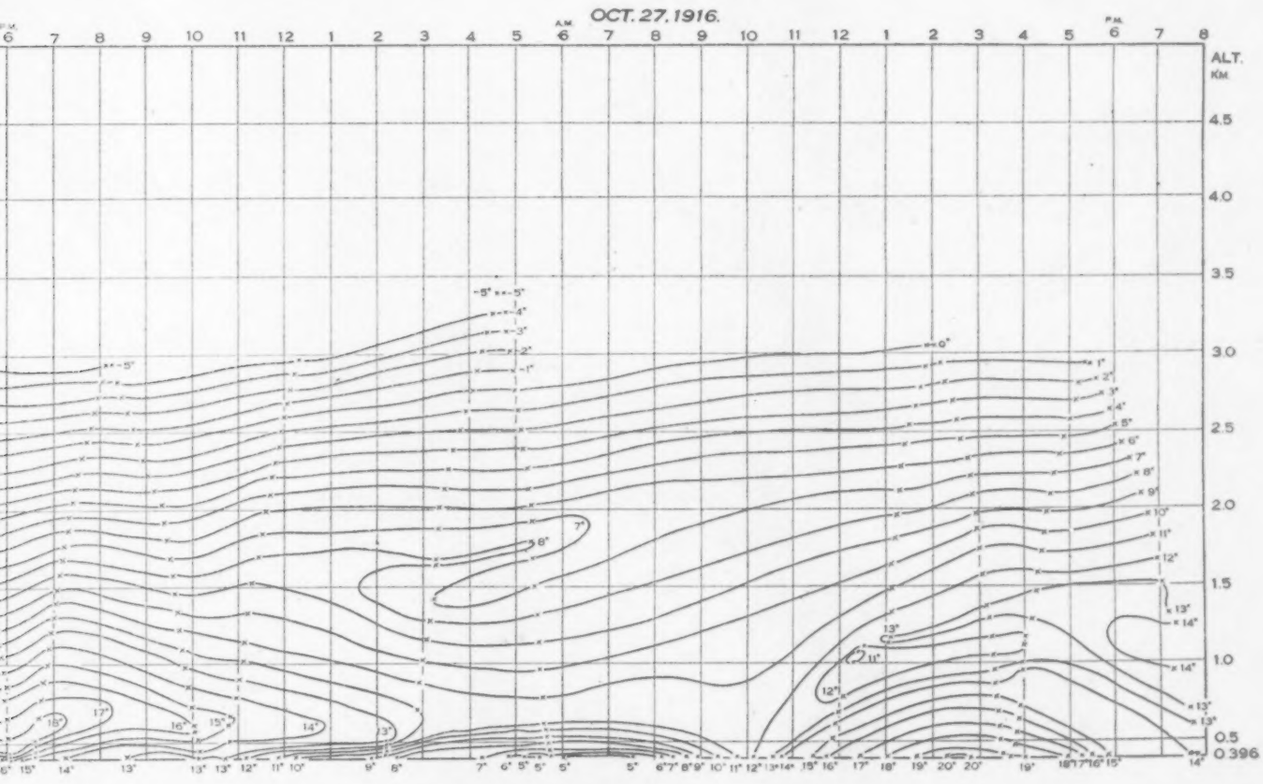


FIG. 8. Free-air tempe



air temperatures, °C, above Drexel Aerological Station, observed October 16–17, 1916.



e-air temperatures, °C, above Drexel Aerological Station, observed October 26–27, 1916.

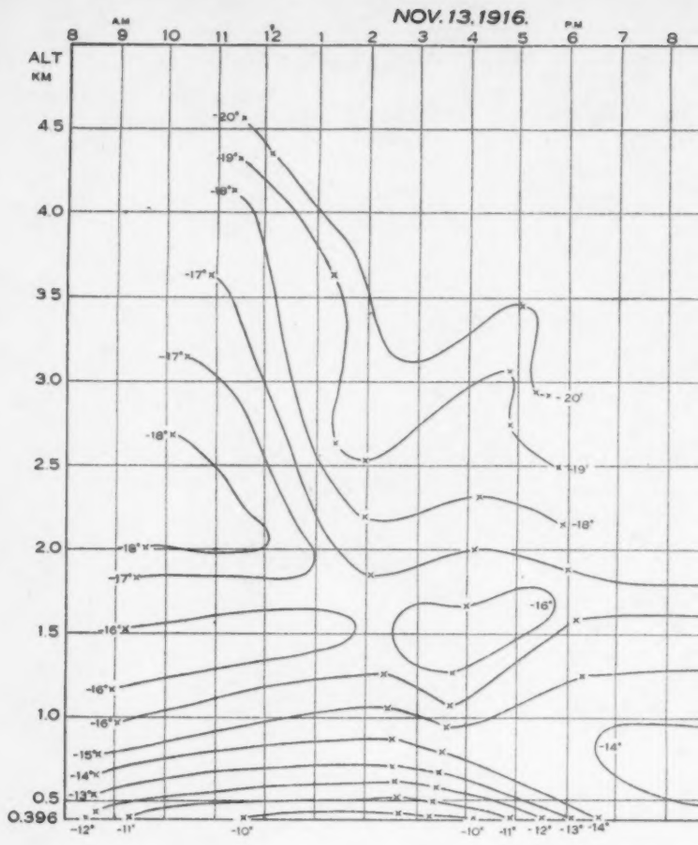


FIG. 9. Free-air temp

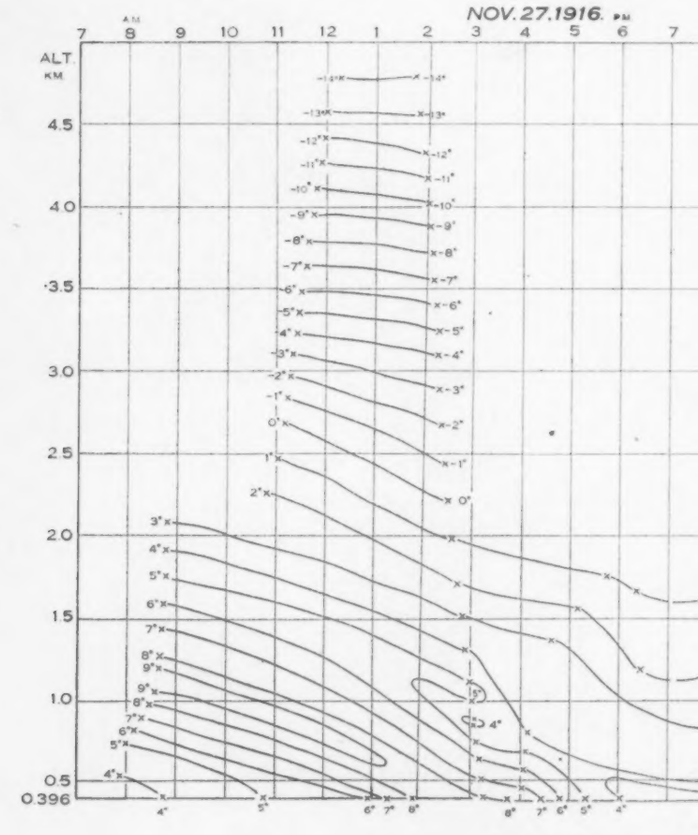
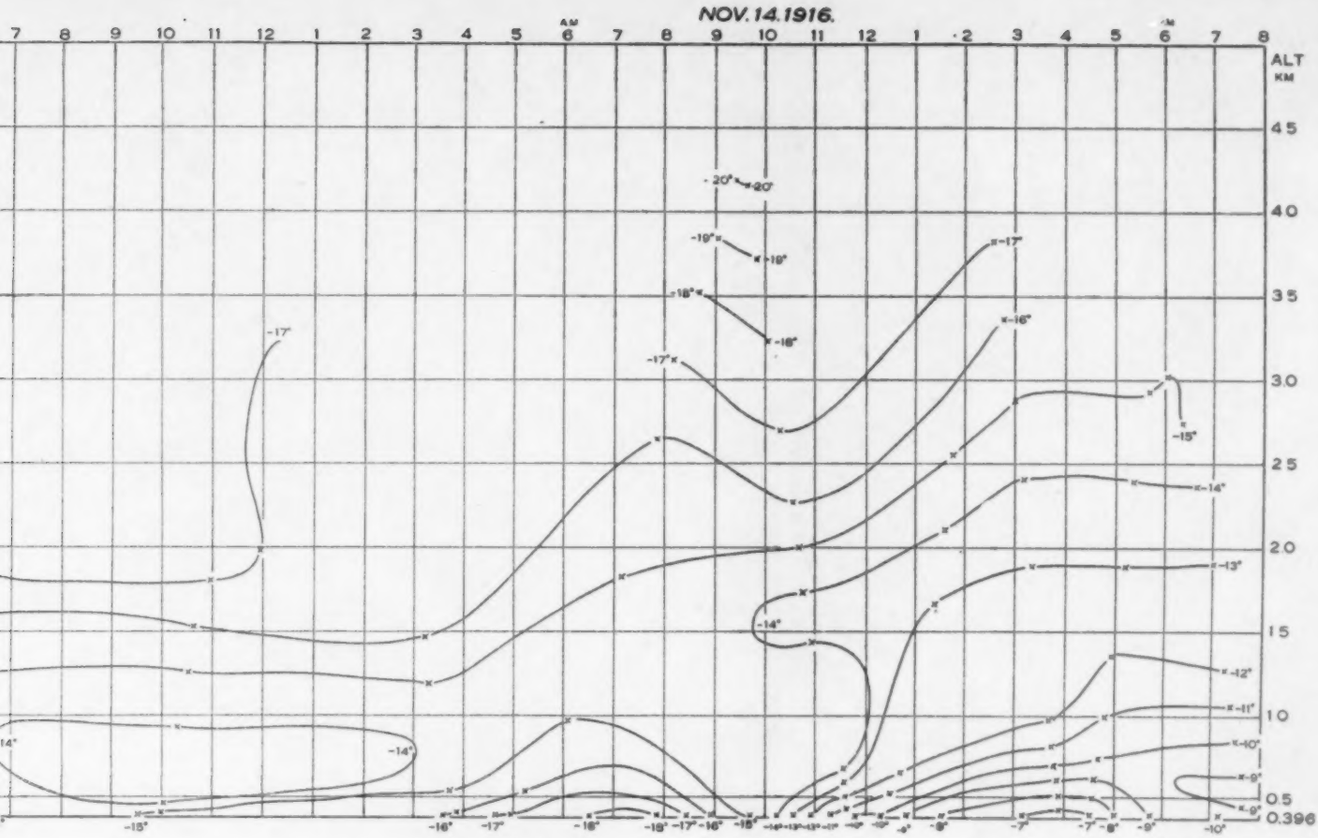
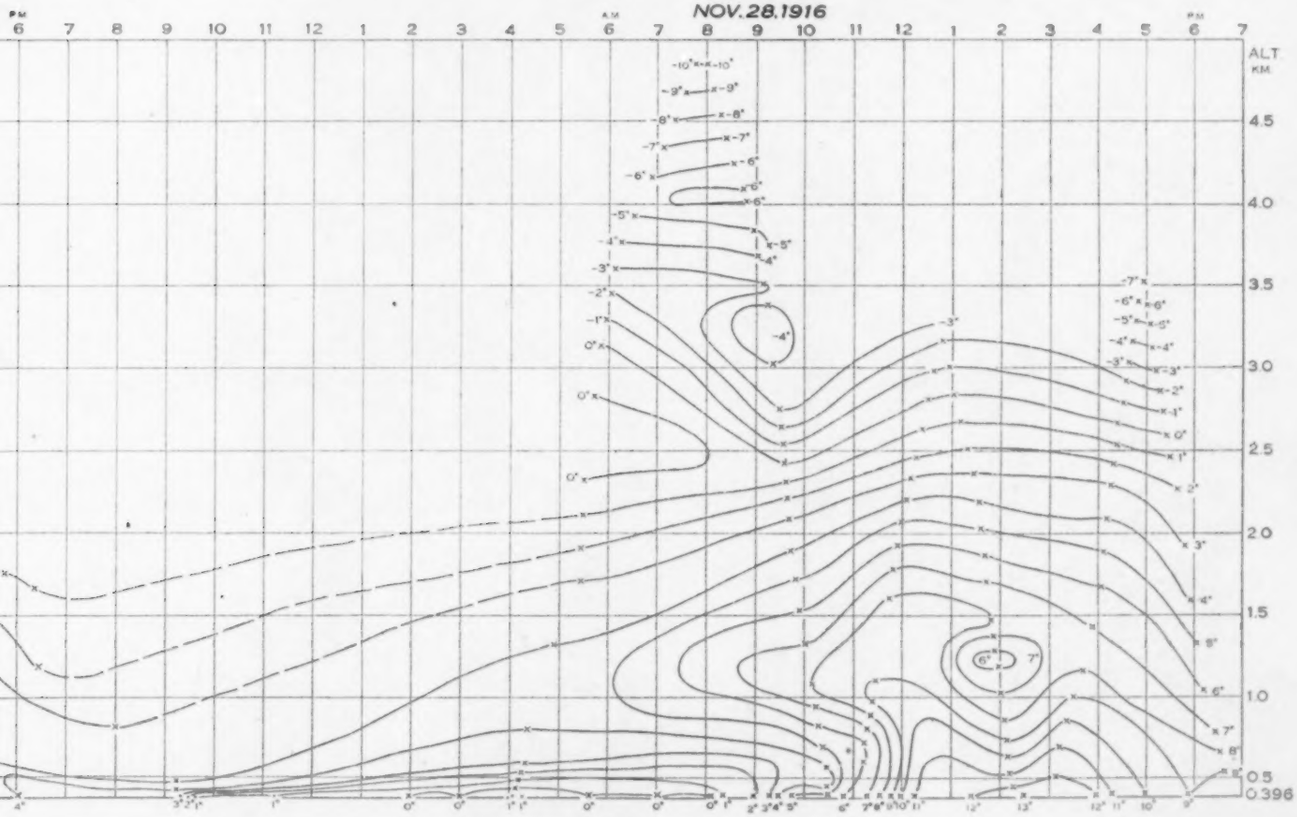


FIG. 10. Free-air temp



e-air temperatures, °C, above Drexel Aerological Station, observed November 13–14, 1916.



e-air temperatures, °C, above Drexel Aerological Station, observed November 27–28, 1916.

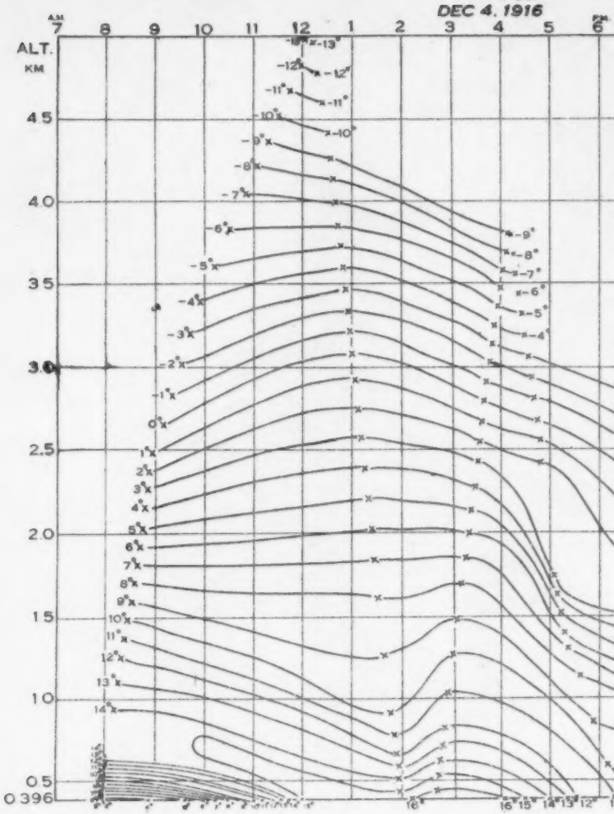


FIG. 11. Free-air temperatures,

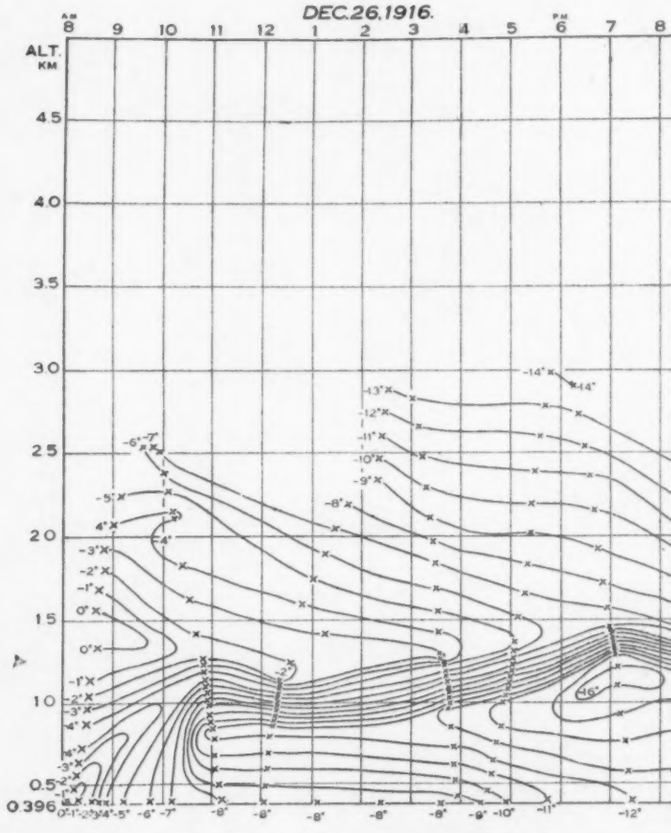
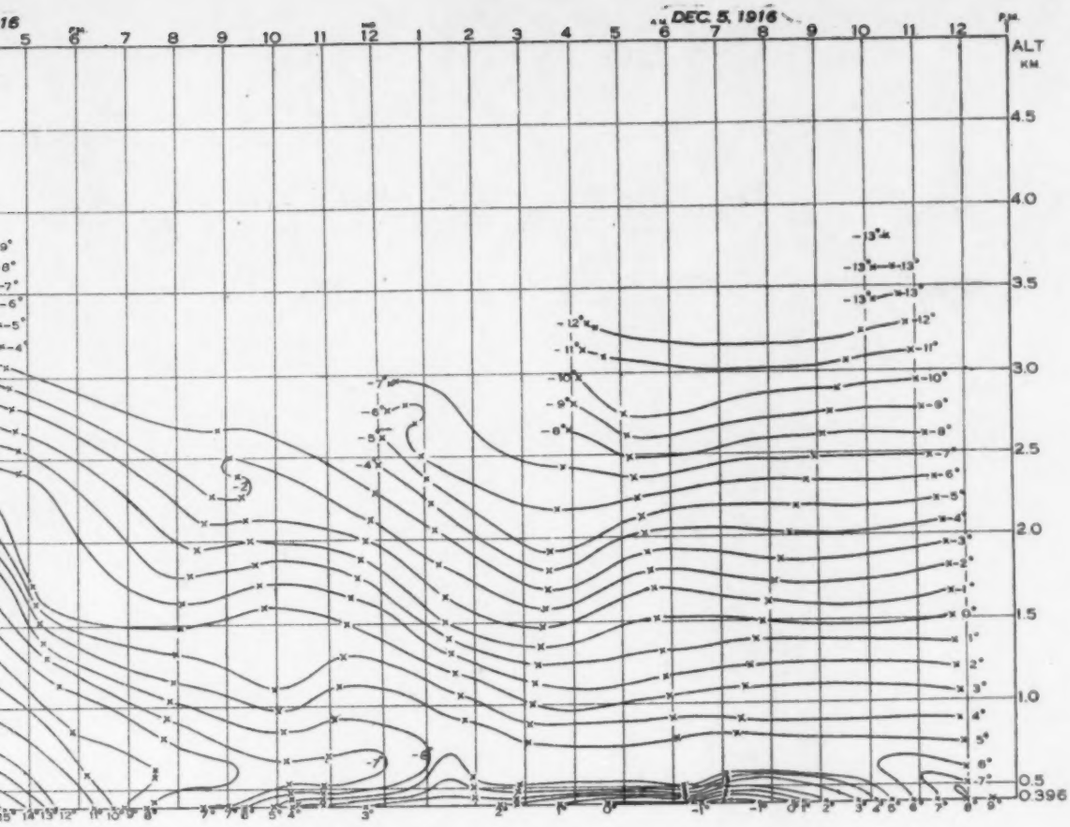
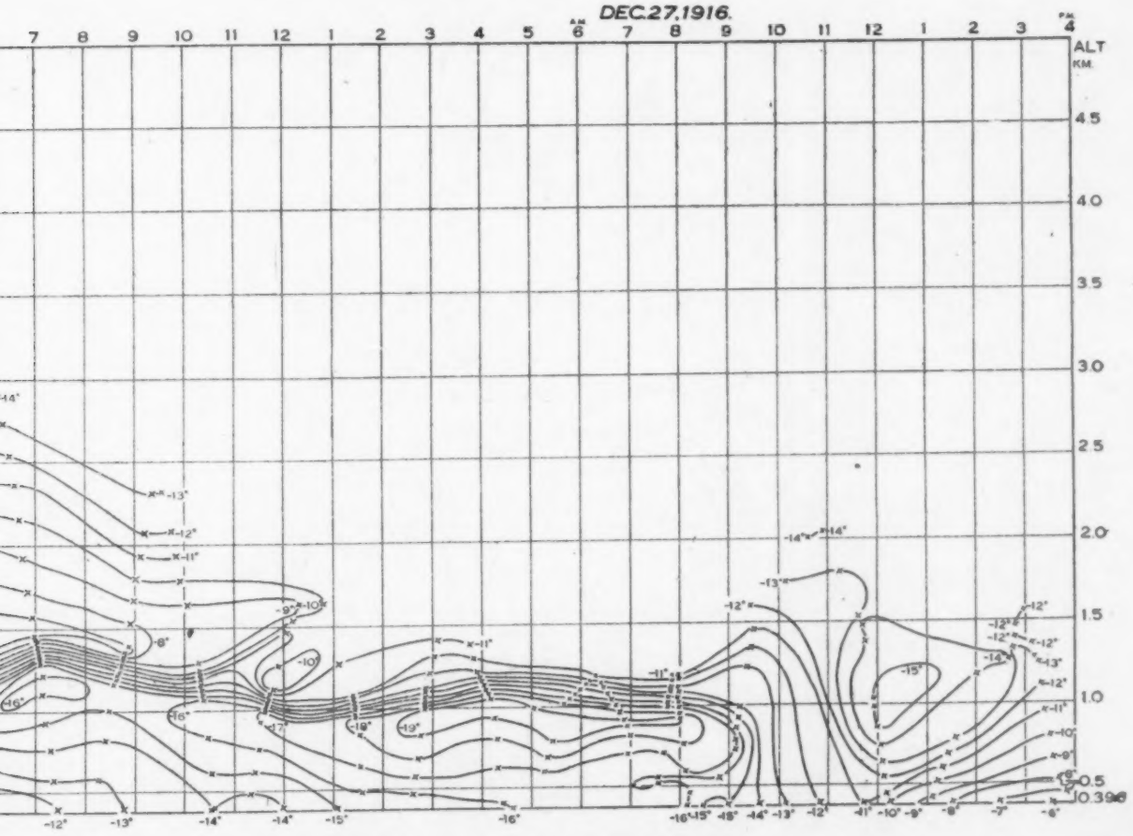


FIG. 12. Free-air temperatures,



mperatures, °C, above Drexel Aerological Station, observed December 4–5, 1916.



mperatures, °C, above Drexel Aerological Station, observed December 26–27, 1916.

TABLE 5.—*Free-air data from kite flights at Drexel Aerological Station, July, 1916.*

July 1, 1916.

Surface.						At different heights above sea.											Remarks.
Time.	Pressure.	Temperature.	Relative humidity.	Wind.		Altitude.	Pressure.	Temperature.	$\frac{\Delta t}{100\ m.}$	Humidity.		Wind.		Potential.			
				Dir.	Vel.					Rel.	Vap. pres.	Dir.	Vel.	Gravity.	Electric.		
A. M.	*mb.*	*°C.*	%		*m. p. s.*	*m.*	*mb.*	*°C.*		%	*mb.*		*m. p. s.*	*10^5 ergs.*	*volts.*		
7:26	970.7	24.4	82	ssw.	4.5	396	970.7	24.4	.....	82	25.07	ssw.	4.5	388	.....		Few Cl.St., wsw.
						500	958.8	23.6	.....	84	24.47	ssw.	6.1	490	0		
7:37	970.8	24.8	82	sw.	4.0	644	943.7	22.4	0.81	86	23.30	sw.	8.2	631	0		
						750	931.6	23.2	.....	80	22.75	wsw.	9.5	735	0		
7:46	970.8	25.2	81	sw.	4.0	757	931.4	23.2	0.71	80	22.75	wsw.	9.6	742	0		
						1,000	905.1	21.9	.....	75	19.71	sw.	8.3	980	0		
						1,250	883.0	20.6	.....	69	16.75	ssw.	7.0	1,225	0		
9:46	970.0	28.0	70	ssw.	4.5	1,391	865.7	19.8	0.54	66	15.25	ssw.	6.3	1,364	0		3/10 Cl., wsw.; few Cl.St., wsw.;
						1,500	855.4	19.2	.....	62	13.80	ssw.	6.9	1,470	0		1/10 Cu. ssw.
						1,750	831.3	17.8	.....	52	10.60	sw.	8.2	1,715	0		
10:53	970.3	29.6	60	ssw.	5.8	1,942	812.3	16.7	0.52	44	8.36	sw.	9.2	1,903	0		Cu. base about 1,700 m.
						1,750	831.3	17.6	.....	55	11.07	sw.	7.6	1,715	0		
						1,500	855.4	19.3	.....	73	16.34	sw.	4.8	1,470	0		2/10 St.Cu., ssw.
11:00	970.3	29.8	61	ssw.	4.9	1,315	874.2	19.8	1.12	79	18.25	sw.	3.9	1,289	0		
						1,250	883.0	20.5	.....	77	18.57	sw.	4.1	1,225	0		
						1,000	905.1	23.3	.....	69	19.74	ssw.	4.7	980	0		
11:11	970.3	29.7	60	sw.	3.6	860	920.8	24.9	1.06	64	20.16	ssw.	5.1	843	0		
						750	931.6	26.1	.....	63	21.31	ssw.	4.7	735	0		
						500	958.8	28.7	.....	61	24.02	ssw.	3.9	490	0		
11:21	970.3	29.8	60	ssw.	3.6	396	970.3	29.8	.....	60	25.18	ssw.	3.6	388	.....		1/10 Cu., ssw.

July 2, 1916.

A. M.																	
10:52	965.5	29.4	59	ssw.	4.5	396	965.5	29.4	.....	59	24.19	ssw.	4.5	388	.....		3/10 Cl., nnw.; few Cu., ssw.
						500	954.0	28.7	.....	58	22.84	ssw.	5.1	490	0		
P. M.																	
12:15	964.6	30.8	52	s.	5.8	744	927.6	27.1	0.66	55	19.73	s.	6.6	730	0		
						750	927.2	27.0	.....	55	19.61	s.	6.6	735	0		
						1,000	900.9	24.6	.....	60	18.56	s.	7.2	980	0		
						1,250	875.3	22.1	.....	66	17.56	ssw.	7.7	1,225	0		
1:17	964.1	32.2	48	s.	4.5	1,451	855.4	20.1	0.99	70	16.47	ssw.	8.1	1,422	0		3/10 Cl., nnw.; 1/10 Cu., ssw.
						1,500	850.2	19.6	.....	70	15.97	ssw.	8.2	1,470	0		
						1,750	826.0	17.2	.....	71	13.93	ssw.	8.8	1,715	0		
1:37	964.0	32.6	46	s.	4.0	1,998	802.4	14.9	1.00	71	12.03	ssw.	9.3	1,958	0		
						1,750	826.0	17.5	.....	69	13.80	ssw.	7.7	1,715	0		
						1,500	850.2	20.1	.....	67	15.77	ssw.	6.0	1,470	0		
1:47	963.9	32.9	47	ssw.	3.6	1,433	857.1	20.8	0.97	67	16.46	ssw.	5.5	1,405	0		
						1,250	875.3	22.6	.....	63	17.28	ssw.	6.6	1,225	0		
						1,000	900.9	25.0	.....	58	18.37	s.	8.1	980	0		
2:03	963.8	32.4	47	ssw.	5.4	770	924.1	27.2	1.39	53	19.12	s.	9.5	755	0		
						750	926.3	27.5	.....	53	19.46	s.	9.2	735	0		
						500	953.6	31.0	.....	48	21.57	s.	5.9	490	0		Arc of 22°halo after 2:05 p.m.
2:10	963.8	32.4	46	s.	4.5	396	963.8	32.4	.....	46	22.38	s.	4.5	388	.....		1/10 Ci. St., nnw.; 3/10 Cu.,ssw.

July 3, 1916.

A. M.																	
7:55	964.2	26.5	71	ssw.	4.5	396	964.2	26.5	.....	71	24.59	ssw.	4.5	388	.....		7/10 A. Cu., nw.; 1/10 Cu., ssw.
						500	952.8	25.1	.....	71	22.63	ssw.	6.7	490	0		
8:18	964.0	27.0	71	ssw.	4.5	671	934.2	22.8	1.35	70	19.43	ssw.	10.3	658	0		6/10 Ci., nw.
						750	926.0	23.8	.....	63	18.58	ssw.	10.9	735	0		
8:22	963.9	27.0	71	ssw.	4.5	803	920.2	24.4	−1.21	59	18.04	ssw.	11.3	787	0		
						1,000	899.6	23.0	.....	62	17.42	ssw.	10.5	980	0		3/10 Cl., nw.; 2/10 Ci. St., nw.
						1,250	873.8	21.1	.....	65	16.27	ssw.	9.5	1,225	0		
9:02	963.5	27.7	68	sw.	3.6	1,306	848.5	20.7	0.74	66	16.12	ssw.	9.3	1,280	0		4/10 Ci., nw.
						1,500	849.0	18.9	.....	67	14.63	ssw.	9.4	1,470	0		
						1,750	824.6	16.6	.....	68	12.85	ssw.	9.6	1,715	0		
						2,000	801.0	14.3	.....	69	11.25	ssw.	9.7	1,960	0		
11:02	963.1	30.9	54	sse.	4.5	2,123	789.1	13.2	0.87	70	10.62	ssw.	9.8	2,081	0		Few Cl.St., nw.; few Cu., ssw.
						2,000	801.0	14.2	.....	72	11.66	ssw.	9.1	1,960	0		
						1,750	824.6	16.2	.....	75	13.82	ssw.	7.6	1,715	0		
						1,500	849.0	18.3	.....	78	16.40	ssw.	6.1	1,470	0		
11:13	963.1	30.7	53	ssw.	4.0	1,340	865.1	19.6	1.12	80	18.25	ssw.	5.1	1,314	0		Few Cl.St., nw.; 1/10 Cu., ssw.
						1,250	873.8	20.6	.....	77	18.69	ssw.	5.4	1,225	0		
						1,000	899.2	23.4	.....	68	19.57	s.	6.4	980	0		
						750	925.3	26.2	.....	58	19.73	s.	7.4	735	0		
11:35	963.1	30.7	53	s.	5.4	717	929.0	26.6	1.43	57	19.85	s.	7.5	703	0		
						500	951.8	29.7	.....	53	22.11	ssw.	5.5	490	0		
11:44	963.1	31.2	51	ssw.	4.5	396	963.1	31.2	.....	51	23.18	ssw.	4.5	388	.....		2/10 Cu., ssw.

July 4, 1916.

P. M.																	
2:47	967.4	25.6	68	e.	4.5	396	967.4	25.6	.....	68	22.33	e.	4.5	388	.....		2/10 Ci., sw.; 6/10 St.Cu., sw.
						500	955.3	24.4	.....	65	19.87	e.	5.1	490	.....		
3:59	966.5	26.3	68	e.	4.5	660	937.8	22.6	1.14	61	16.73	e.	6.0	647	0		8/10 Ci., sw.
						750	927.8	22.4	.....	58	15.71	e.	5.5	735	0		
						1,000	901.8	21.7	.....	49	12.72	e.	4.1	980	0		
4:34	966.5	26.4	75	e.	4.5	1,092	892.5	21.4	0.36	46	11.73	e.	3.6	1,071	0		
						1,000	901.8	21.8	.....	52	13.58	e.	3.8	980	0		
						750	927.8	22.9	.....	67	18.71	e.	4.4	735	0		
4:45	966.5	26.3	74	e.	4.5	612	943.1	23.5	1.34	75	21.72	e.	4.7	600	0		
						500	955.3	25.0	.....	74	23.44	e.	4.3	490	0		
4:52	966.5	26.4	73	e.	4.0	396	966.5	26.4	.....	73	25.13	e.	4.0	388	.....		8/10 Ci., sw.

TABLE 5.—*Free-air data from kite flights at Drexel Aerological Station, July, 1916*—Continued.

July 5, 1916.

Surface.						At different heights above sea.											
Time.	Pressure.	Temperature.	Relative humidity.	Wind.		Altitude.	Pressure.	Temperature.	Δt / 100 m.	Humidity.		Wind.		Potential.		Remarks.
				Dir.	Vel.					Rel.	Vap. pres.	Dir.	Vel.	Gravity.	Electric.	
A. M.	*mb.*	°*C.*	%		*m. p. s.*	*m.*	*mb.*	°*C.*		%	*mb.*		*m. p. s.*	10^5 *ergs.*	*volts.*	
9:28	971.1	24.8	80	sse.	4.5	396	971.1	24.8	.....	80	25.05	sse.	4.5	388	.....	9/10 Cl.St., wnw.
						500	959.5	24.4	.....	79	24.15	sse.	4.8	490	0	
						750	932.3	23.4	.....	77	22.16	sse.	5.4	735	0	
						1,000	905.9	22.3	.....	75	20.20	sse.	6.0	980	0	
2:06	970.3	29.3	60	se.	3.6	1,019	904.0	22.2	0.79	75	20.08	sse.	6.1	999	0	Few Cl.St., wsw.
						1,000	905.5	22.4	.....	74	20.05	sse.	6.0	980	0	
						750	931.8	25.3	.....	66	21.29	sse.	4.8	735	0	
						500	958.5	28.2	.....	59	22.57	se.	3.6	490	0	
2:31	970.3	29.4	56	se.	3.1	396	970.3	29.4	.....	56	22.96	se.	3.1	388	.....	Few Cl.St., wsw.

July 6, 1916.

A. M.																
7:33	974.0	23.0	76	s.	4.5	396	974.0	23.0	.....	76	21.36	s.	4.5	388	.....	Cloudless.
						500	962.2	22.7	.....	73	20.14	s.	6.0	490	0	
						750	935.1	21.9	.....	64	16.82	s.	9.5	735	0	
7:40	974.0	23.0	74	s.	4.5	784	931.6	21.8	0.31	63	16.46	s.	10.0	769	0	
						1,000	908.5	20.6	.....	55	13.35	s.	9.2	980	0	
						1,250	882.7	19.2	.....	45	10.01	sse.	8.3	1,225	0	
						1,500	857.2	17.9	.....	35	7.18	se.	7.4	1,470	0	
9:06	974.0	25.6	62	s.	4.9	1,634	844.3	17.2	0.54	30	5.89	se.	6.9	1,602	0	
						1,750	833.0	16.0	.....	47	8.60	se.	6.9	1,715	280	
10:05	974.3	26.8	55	s.	6.3	1,892	819.5	14.5	1.05	67	11.06	se.	6.8	1,854	.....	
						2,000	808.8	13.8	.....	67	10.57	se.	6.5	1,960	.....	
						2,250	785.0	12.3	.....	67	9.59	se.	5.7	2,205	.....	
10:56	974.3	27.6	53	s.	4.5	2,389	772.5	11.4	0.63	67	9.03	se.	5.3	2,341	.....	
						2,250	785.0	12.3	.....	66	9.44	se.	5.3	2,205	.....	
						2,000	808.8	13.9	.....	66	10.48	sse.	5.3	1,960	.....	
11:08	974.3	27.8	52	s.	4.9	1,875	821.1	14.7	0.71	65	10.87	sse.	5.3	1,838	.....	
						1,750	833.0	15.6	.....	65	11.52	sse.	5.4	1,715	.....	
						1,500	857.2	17.4	.....	65	12.92	sse.	5.6	1,470	.....	
						1,250	882.7	19.1	.....	65	14.37	s.	5.8	1,225	.....	
						1,000	908.5	20.9	.....	65	16.07	s.	5.9	980	.....	
11:25	974.3	27.8	52	s.	4.0	988	910.6	21.0	1.13	65	16.17	s.	5.9	969	.....	
						750	935.1	23.7	.....	60	17.59	s.	5.7	735	.....	
						500	962.2	26.5	.....	55	19.05	s.	5.5	490	.....	
11:42	974.3	27.7	53	s.	5.4	396	974.3	27.7	.....	53	19.69	s.	5.4	388	.....	Cloudless..

July 9, 1916.

P. M.																
6:17	966.1	31.0	51	se.	2.7	396	966.1	31.0	.....	51	22.92	se.	2.7	388	.....	Cloudless.
						500	955.0	29.7	.....	51	21.28	se.	4.9	490	0	
6:45	966.0	30.2	55	sse.	2.7	610	943.2	29.3	0.79	51	20.79	sse.	7.1	598	0	
						750	928.3	27.8	.....	52	19.43	sse.	6.9	735	0	
						1,000	902.2	25.1	.....	55	17.53	sse.	6.6	980	0	
8:08	965.9	26.9	64	sse.	2.7	1,079	894.4	24.2	1.09	56	16.91	sse.	6.5	1,058	0	
						1,250	876.6	22.5	.....	59	16.08	sse.	6.1	1,225	0	
						1,500	851.7	20.1	.....	64	15.06	sse.	5.5	1,470	0	
						1,750	827.7	17.7	.....	68	13.77	sse.	4.9	1,715	0	
8:21	966.0	26.5	65	sse.	2.7	1,808	822.3	17.1	1.00	69	13.46	sse.	4.8	1,772	0	
						1,750	827.7	17.7	.....	68	13.77	sse.	4.8	1,715	0	
						1,500	851.7	20.3	.....	64	15.24	sse.	5.0	1,470	0	
						1,250	876.6	22.9	.....	59	16.48	sse.	5.1	1,225	0	
8:37	966.1	26.5	64	sse.	2.2	1,113	891.0	24.3	0.94	56	17.02	sse.	5.2	1,091	0	
						1,000	902.2	25.4	.....	54	17.52	sse.	6.1	980	0	
						750	928.3	27.7	.....	50	18.58	sse.	8.1	735	0	
9:05	966.2	26.1	65	sse.	2.7	560	948.5	29.5	−2.30	47	19.38	sse.	9.6	549	0	
						500	955.0	28.2	.....	54	20.66	sse.	7.2	490	0	
9:08	966.2	25.9	67	sse.	3.1	396	966.2	25.9	.....	67	22.39	sse.	3.1	388	.....	Cloudless.

July 10, 1916.

A. M.																
7:33	967.4	24.0	80	s.	3.6	396	967.4	24.0	.....	80	23.87	s.	3.6	388	.....	Cloudless.
						500	955.6	23.1	.....	73	20.64	s.	6.3	490	0	
7:40	967.3	24.6	78	s.	4.5	641	940.6	21.8	0.90	63	16.46	s.	10.0	628	0	
						750	929.0	23.6	.....	58	16.90	ssw.	10.3	735	0	
7:47	967.3	24.9	78	s.	4.5	806	923.0	24.5	−1.64	55	16.91	sw.	10.4	790	0	
						1,000	903.0	22.9	.....	58	16.20	sw.	9.7	980	0	
						1,250	877.1	20.8	.....	62	15.23	sw.	8.8	1,225	0	
						1,500	852.2	18.7	.....	67	14.45	sw.	7.9	1,470	0	
8:11	967.1	25.8	72	s.	4.5	1,584	843.9	18.0	0.84	68	14.04	sw.	7.6	1,553	0	
						1,750	827.5	17.0	.....	65	12.60	sw.	7.5	1,715	0	
						2,000	803.3	15.6	.....	60	10.63	ssw.	7.4	1,960	40	
						2,250	780.2	14.1	.....	55	8.85	ssw.	7.3	2,205	.....	
9:19	966.8	27.2	65	ssw.	4.9	2,257	779.8	14.1	0.58	55	8.85	ssw.	7.3	2,212	.....	
						2,500	757.7	16.0	.....	26	4.73	ssw.	3.6	2,450	.....	
10:11	966.4	28.6	58	ssw.	4.9	2,524	755.7	16.2	−0.56	23	4.24	ssw.	3.2	2,473	.....	
						2,500	757.7	16.1	.....	24	4.39	ssw.	3.5	2,450	.....	
						2,250	780.2	15.3	.....	29	5.04	ssw.	6.5	2,205	.....	
10:26	966.4	28.9	58	ssw.	4.5	2,220	783.1	15.2	0.72	30	5.18	ssw.	6.8	2,176	165	
						2,000	803.3	16.8	.....	36	6.89	ssw.	7.5	1,960	40	
						1,750	827.5	18.6	.....	42	9.00	ssw.	8.2	1,715	24	
						1,500	852.2	20.4	.....	49	11.75	ssw.	9.0	1,470	0	
10:55	966.2	29.9	54	ssw.	5.8	1,328	869.3	21.6	0.90	54	13.93	ssw.	9.5	1,302	0	
						1,250	877.1	22.3	.....	55	14.81	ssw.	9.1	1,225	0	
						1,000	902.6	24.5	.....	56	17.22	s.	7.9	980	0	
11:11	966.2	30.1	51	s.	7.2	803	923.0	26.3	1.01	57	19.51	s.	7.0	787	0	
						750	928.4	26.8	.....	56	19.73	s.	6.8	735	0	
						500	955.0	29.4	.....	51	20.91	s.	5.8	490	0	
11:19	966.2	30.4	49	s.	5.4	396	966.2	30.4	.....	49	21.28	s.	5.4	388	.....	Cloudless.

TABLE 5.—*Free-air data from kite flights at Drexel Aerological Station, July, 1916*—Continued.

July 12, 1916 (No. 1).

Surface.						At different heights above sea.										Remarks.
Time.	Pressure.	Temperature.	Relative humidity.	Wind.		Altitude.	Pressure.	Temperature.	$\frac{\Delta t}{100\ m.}$	Humidity.		Wind.		Potential.		
				Dir.	Vel.					Rel.	Vap. pres.	Dir.	Vel.	Gravity.	Electric.	
A. M.	*mb.*	°*C.*	%		*m. p. s.*	*m.*	*mb.*	°*C.*		%	*mb.*		*m. p. s.*	10^5 *ergs.*	*volts.*	
7:35	967.8	24.3	78	ene.	7.2	396	967.8	24.3	.....	78	23.70	ene.	7.2	388	.....	3/10 Ci., nnw.; 5/10 Ci.St., nnw.
						500	955.9	23.2	.....	81	23.04	ene.	8.5	490	0	
7:38	967.8	24.5	79	e.	7.2	628	942.5	21.9	1.03	84	22.08	ene.	10.1	616	0	
						750	929.8	23.7	.....	71	20.81	ene.	8.0	735	0	
8:30	968.1	25.1	75	e.	6.7	847	919.6	25.2	−1.51	60	19.24	ene.	6.4	830	0	2/10 Ci., nnw.; 7/10 Ci.St., nnw
						1,000	905.6	23.6	.....	62	18.06	ene.	5.2	980	0	
9:16	968.4	26.2	70	e.	5.8	1,185	885.0	21.7	1.10	65	16.87	e.	3.8	1,162	0	
						1,000	905.6	23.8	.....	61	17.99	e.	2.3	980	0	
9:28	968.5	26.4	68	ese.	5.8	934	910.9	24.6	−1.22	59	18.25	e.	1.7	916	0	
9:46	968.7	26.3	68	ese.	4.0	753	930.2	22.4	1.18	72	19.50	e.	12.5	738	0	
						500	957.3	25.4	.....	71	23.04	ese.	6.5	490	0	
9:56	968.9	26.6	71	ese.	4.0	396	968.9	26.6	.....	71	24.73	ese.	4.0	388	.....	1/10 Ci., nnw.; 8/10 Ci.St., nnw.

July 12, 1916 (No. 2).

P. M.																
3:24	966.9	29.6	60	ne.	4.9	396	966.9	29.6	.....	60	24.89	ne.	4.9	388	.....	7/10 A. Cu., w.; few Cu. Nb., w. Thunderstorm south of station; electric potential very variable.
						500	955.2	27.9	.....	63	23.68	ne.	4.9	490	0	
4:27	967.0	28.8	61	ne.	4.5	740	930.1	24.1	1.60	71	21.31	ne.	5.0	726	.....	
						750	929.0	24.1	.....	71	21.31	ne.	5.0	735	.....	
5:21	967.4	27.4	67	ne.	2.7	875	916.2	24.3	−0.26	71	21.58	ene.	5.0	858	.....	
						750	929.0	23.8	.....	74	21.82	ne.	6.3	735	.....	
5:26	967.4	27.3	68	nne.	2.7	628	942.4	23.4	1.64	77	22.16	ne.	7.5	616	.....	
						500	955.2	25.5	.....	73	23.83	nne.	4.9	490	.....	
5:33	967.5	27.2	69	nne.	2.7	396	967.5	27.2	.....	69	24.90	nne.	2.7	388	.....	2/10 A.St., w.; 8/10 St.Cu., sw.

July 14, 1916.

A. M.																
8:38	967.9	24.4	76	sse.	4.5	396	967.9	24.4	.....	76	23.23	sse.	4.5	388	.....	2/10 Ci., w.; few Cu., s.
						500	956.0	21.7	.....	85	22.07	s.	7.2	490	0	
8:48	967.9	24.4	79	s.	4.5	576	948.1	19.8	2.56	92	21.25	s.	9.1	565	0	
						750	929.1	20.2	.....	80	18.94	s.	9.5	735	0	
9:10	967.9	24.9	74	ssw.	4.0	771	927.0	20.3	−0.26	78	18.58	s.	9.5	756	0	
						1,000	903.1	19.8	.....	79	18.25	s.	9.0	980	.....	Cu. base about 1,000 m.
						1,250	877.5	19.3	.....	79	17.69	s.	8.4	1,225	.....	
11:28	967.1	27.6	64	s.	6.7	1,422	859.6	19.0	0.20	80	17.58	s.	8.0	1,394	.....	3/10 Ci., w.; 3/10 Cu., sw.
						1,500	852.2	18.4	.....	80	16.93	s.	8.2	1,470	.....	
						1,750	828.0	16.5	.....	78	14.64	s.	9.0	1,715	.....	
11:33	967.0	27.5	65	s.	5.8	1,935	809.6	15.1	0.96	77	13.21	s.	9.5	1,896	.....	
						1,750	828.0	17.3	.....	70	13.82	s.	10.0	1,715	.....	1/10 Ci., w.; 1/10 Cu., sw.
						1,500	852.2	20.2	.....	61	14.44	s.	10.6	1,470	.....	
P. M.																
1:21	966.4	31.3	53	ssw.	5.4	1,412	861.3	21.2	0.94	58	14.60	s.	10.8	1,384	.....	
						1,250	877.2	22.7	.....	57	15.73	s.	9.8	1,225	.....	
						1,000	902.8	25.1	.....	56	17.85	s.	8.2	980	.....	
						750	928.3	27.4	.....	56	20.45	ssw.	6.7	735	.....	
						500	955.0	29.8	.....	55	23.08	ssw.	5.1	490	.....	
1:29	966.4	30.8	54	ssw.	4.5	396	966.4	30.8	.....	54	23.99	ssw.	4.5	388	.....	2/10 Ci., w.; few Cu., sw.

July 15, 1916.

A. M.																
7:28	967.2	27.2	66	ssw.	4.5	396	967.2	27.2	.....	66	23.81	ssw.	4.5	388	.....	1/10 Cu., sw.
						500	960.0	26.0	.....	61	20.51	sw.	10.4	490	0	
7:33	967.2	27.3	64	ssw.	4.9	524	953.2	25.7	1.17	60	19.82	sw.	11.7	514	0	
						750	930.0	29.2	.....	36	14.59	sw.	15.3	735	0	
7:40	967.2	27.5	61	s.	5.4	792	925.0	29.9	−1.57	32	13.50	sw.	16.0	777	0	
						1,000	904.3	28.1	.....	36	13.69	sw.	14.6	980	0	
7:56	967.2	28.2	60	ssw.	5.8	1,254	878.1	25.9	0.87	40	13.37	sw.	13.0	1,229	0	
						1,500	854.0	23.7	.....	43	12.60	sw.	12.6	1,470	0	
						1,750	829.6	21.4	.....	46	11.73	sw.	12.2	1,715	0	
						2,000	805.8	19.2	.....	49	10.90	sw.	11.8	1,960	0	
8:18	967.3	28.6	59	ssw.	5.4	2,121	794.8	18.1	0.90	50	10.38	sw.	11.6	2,079	0	1/10 A. Cu., w.
						2,250	782.8	17.0	.....	51	9.88	sw.	10.6	2,205	0	
						2,500	760.4	14.8	.....	53	8.92	sw.	8.8	2,450	0	Few A. Cu., w.
						2,750	738.5	12.6	.....	55	8.02	sw.	6.7	2,694	0	
9:46	967.6	30.6	58	ssw.	4.0	3,001	716.8	10.4	0.92	58	7.31	sw.	4.7	2,940	0	
						2,750	738.5	12.8	.....	55	8.13	sw.	5.7	2,694	0	
						2,500	760.4	15.2	.....	52	8.98	sw.	6.6	2,450	0	
						2,250	782.8	17.7	.....	50	10.12	sw.	7.6	2,205	0	
10:06	967.6	32.0	51	sw.	4.9	2,166	791.5	18.5	0.92	49	10.44	sw.	7.9	2,123	0	Cloudless.
						2,000	805.8	20.0	.....	47	10.99	sw.	8.3	1,960	0	
						1,750	829.6	22.3	.....	44	11.85	sw.	9.0	1,715	0	
						1,500	854.0	24.6	.....	41	12.69	sw.	9.6	1,470	0	
						1,250	879.2	26.9	.....	38	13.47	sw.	10.3	1,225	0	
10:40	967.8	33.0	47	sw.	3.6	1,231	881.5	27.1	0.59	38	13.63	sw.	10.4	1,207	0	
						1,000	904.3	28.5	.....	42	16.35	sw.	8.0	980	0	
						750	930.0	29.9	.....	46	19.41	sw.	5.4	735	0	
10:50	967.8	33.2	46	sw.	4.9	634	942.6	30.6	1.18	48	21.09	sw.	4.2	622	0	
						500	960.0	32.2	.....	46	22.13	sw.	4.6	490	0	
10:59	967.9	33.4	45	sw.	4.9	396	967.9	33.4	.....	45	23.16	sw.	4.9	388	.....	Cloudless.

TABLE 5.—*Free-air data from kite flights at Drexel Aerological Station, July, 1916*—Continued.

July 16, 1916.

Surface.						At different heights above sea.										Remarks.
Time.	Pressure.	Temperature.	Relative humidity.	Wind.		Altitude.	Pressure.	Temperature.	$\frac{\Delta t}{100\ m.}$	Humidity.		Wind.		Potential.		
				Dir.	Vel.					Rel.	Vap. pres.	Dir.	Vel.	Gravity.	Electric.	
P. M.	*mb.*	*°C.*	%		*m. p. s.*	*m.*	*mb.*	*°C.*		%	*mb.*		*m. p. s.*	*10^5 ergs.*	*volts.*	
2:10	968.5	34.8	34	se.	6.7	396	968.5	34.8		34	18.91	se.	6.7	388		4/10 Cu., se.
						500	757.0	33.4		35	18.01	se.	7.2	490	0	
2:18	968.5	34.6	35	se.	5.8	727	933.6	30.3	1.36	38	16.41	ese.	8.2	713	0	
						750	931.0	29.9		38	16.04	ese.	8.2	735	0	
						1,000	905.0	26.1		44	14.88	se.	7.7	980	0	
2:57	968.2	34.5	34	se.	5.8	1,095	895.2	24.7	1.52	46	14.32	se.	7.5	1,073	0	3/10 Cu., se.
						1,250	879.8	23.6		50	14.56	se.	7.6	1,225	0	
3:24	968.0	35.4	34	se.	4.5	1,418	862.8	22.5	0.68	54	14.72	se.	7.8	1,390		Thunderstorm sw. of station.
						1,500	854.5	21.6		56	14.45	se.	8.1	1,470		
						1,750	830.2	18.9		62	13.54	se.	8.8	1,715		Electric potential very variable.
						2,000	806.3	16.2		68	12.53	se.	9.6	1,960		
3:34	967.9	35.4	35	se.	4.9	2,121	794.9	14.9	1.04	69	11.69	se.	10.0	2,079		
						2,000	806.3	16.1		67	12.26	se.	10.1	1,960		
						1,750	830.2	18.6		63	13.50	se.	10.3	1,715		
						1,500	854.5	21.0		59	14.67	se.	10.5	1,470		
3:43	967.8	33.7	38	se.	4.9	1,434	861.1	21.7	1.08	58	15.06	se.	10.5	1,406	0	3/10 Cu., sse.
						1,250	879.2	23.7		53	15.53	se.	10.3	1,225	0	
3:52	967.7	33.1	40	se.	5.4	1,072	897.0	25.6	1.21	48	15.76	se.	10.1	1,051	0	
						1,000	904.3	26.5		47	16.28	se.	9.7	980	0	
						750	930.0	29.5		43	17.73	se.	8.4	735	0	Thunderstorm approaching station.
4:03	967.6	32.8	42	se.	3.6	699	935.4	30.1	0.89	42	17.93	se.	8.1	685	0	
						500	756.1	31.9		42	19.87	se.	4.8	490	0	
4:07	967.7	32.8	42	se.	3.1	396	967.7	32.8		42	20.90	se.	3.1	388		5/10 Cu., sse.

July 17, 1916.

A. M.																
7:36	967.9	26.8	58	sse.	3.6	396	967.9	26.8		58	20.44	sse.	3.6	388		5/10 Cu., nw.
						500	956.1	25.5		56	18.28	se.	5.1	490	0	
7:44	967.9	26.7	58	se.	5.4	594	946.4	24.4	1.21	55	16.81	se.	6.5	582	0	
						750	929.7	27.5		45	16.52	s.	8.4	735	0	Heavy thunderstorm west-southwest of station; 2/10 Ci., sw.; 4/10 Cu., nw.
7:50	967.9	27.0	58	se.	4.5	760	928.8	27.7	−1.99	44	16.35	s.	8.5	745	0	
						1,000	903.3	25.5		48	15.67	ssw.	7.2	980	0	
9:40	968.0	28.8	56	sw.	9.8	1,219	881.9	23.4	0.94	52	14.97	ssw.	6.0	1,195		
						1,250	877.7	23.1		52	14.70	ssw.	5.8	1,225		Electric potential very variable.
						1,500	852.7	21.0		53	13.18	ssw.	4.4	1,470		
						1,750	828.8	18.9		54	11.79	ssw.	2.9	1,715		
9:58	967.9	29.8	53	sw.	8.0	1,885	816.5	17.8	0.94	54	11.01	ssw.	2.1	1,847		
						1,750	828.8	19.2		53	11.79	ssw.	3.1	1,715		1/10 Ci., sw.; 3/10 Cu., nw.
						1,500	852.7	21.8		50	13.06	sw.	5.0	1,470		
						1,250	877.7	24.4		47	14.37	sw.	6.8	1,225	0	
10:18	967.9	29.5	54	sw.	9.4	1,217	881.9	24.7	−6.94	47	14.63	sw.	7.0	1,193	0	
10:31	967.9	29.0	54	sw.	10.3	1,181	885.3	22.2	0.77	53	14.19	sw.	7.5	1,158	0	
						1,000	903.3	23.6		52	15.15	sw.	7.6	980	0	
10:44	967.9	28.6	55	sw.	8.5	776	927.1	25.3	0.97	50	16.13	sw.	7.7	761	0	
						750	929.7	25.5		50	16.32	sw.	7.7	735	0	
						500	956.1	28.0		52	19.66	sw.	7.3	490	0	
10:49	967.9	29.0	53	sw.	7.2	396	967.9	29.0		53	21.24	sw.	7.2	388		1/10 Ci., sw.; 3/10 Cu., nw.

July 18, 1916, series (No. 1).

A. M.																
7:01	965.2	24.2	76	se.	4.9	396	965.2	24.2		76	22.95	se.	4.9	388		1/10 Cu., sse.
						500	953.3	23.2		76	21.61	se.	13.4	490	0	
7:02	965.2	24.2	76	se.	4.9	595	943.6	22.3	0.95	76	20.47	se.	21.1	583	0	
7:04	965.2	24.4	76	se.	4.9	754	926.6	23.4	−0.69	72	20.72	s.	18.6	739	0	
7:11	965.1	24.5	75	se.	6.7	925	908.4	22.6	0.47	72	19.75	s.	14.5	907	0	
						1,000	900.9	23.1		69	19.51	ssw.	14.3	980	0	
						1,250	875.0	25.0		57	18.06	sw.	13.5	1,225	0	
7:18	965.1	24.9	74	se.	6.7	1,268	873.8	25.1	−0.73	56	17.85	sw.	13.4	1,243	0	
						1,500	849.8	23.1		58	16.40	sw.	12.7	1,470	0	
						1,750	825.3	21.0		60	14.92	sw.	11.9	1,715	0	
						2,000	802.3	18.9		63	13.76	sw.	11.1	1,960	0	
7:48	964.9	25.8	69	sse.	6.3	2,172	787.2	17.5	0.84	65	13.00	sw.	10.5	2,129	0	
						2,250	780.9	16.8		66	12.63	sw.	10.1	2,205	200	Few Cu., sse.
						2,500	760.0	14.7		69	11.54	sw.	8.7	2,450	540	
8:45	964.6	28.5	61	s.	6.3	2,726	737.5	12.8	0.85	71	10.49	sw.	7.5	2,671	755	
						2,750	739.8	12.6		71	10.36	sw.	7.5	2,694	755	
						3,000	720.1	10.2		72	8.96	sw.	7.2	2,939	760	
						3,250	701.2	7.7		72	7.57	sw.	6.9	3,184	770	
9:35	964.7	30.2	54	sse.	6.3	3,481	673.8	5.4	1.00	73	6.55	sw.	6.7	3,410	780	
						3,250	701.2	7.7		72	7.57	sw.		3,184	720	
						3,000	720.1	10.2		71	8.84	sw.		2,939	650	
						2,750	739.8	12.8		69	10.20	sw.		2,694		
						2,500	760.0	15.3		67	11.64	sw.		2,450		
						2,250	780.9	17.8		66	13.45	sw.		2,205		1/10 A. Cu., sw.; few Cu., sse.
10:00	964.8	30.8	53	sse.	6.3	2,201	785.5	18.3		66	13.88	sw.		2,157		
																Clock cylinder slipped.

TABLE 5.—*Free-air data from kite flights at Drexel Aerological Station, July, 1916*—Continued.

July 18, 1916, series (No. 2).

Surface.						At different heights above sea.											
Time.	Pressure.	Temperature.	Relative humidity.	Wind.		Altitude.	Pressure.	Temperature.	Δt / 100 m.	Humidity.		Wind.		Potential.		Remarks.
				Dir.	Vel.					Rel.	Vap. pres.	Dir.	Vel.	Gravity.	Electric.	
A. M.	mb.	°C.	%		m. p. s.	m.	mb.	°C.		%	mb.		m. p. s.	10^5 ergs.	volts.	
11:48	965.1	31.6	53	sse.	6.3	396	965.1	31.6		53	24.64	sse.	6.3	388		1/10 A.Cu., sw.; 1/10 Cu., sw.
						500	954.2	29.8		57	23.92	sse.	7.7	490	0	
						750	927.5	25.6		68	22.33	sse.	11.0	735	0	
11:56	965.1	31.4	53	sse.	8.9	807	921.5	24.6	1.70	70	21.66	sse.	11.8	791	0	
						1,000	901.4	23.3		71	20.31	s.	12.2	980	0	
						1,250	876.0	21.7		73	18.95	s.	12.6	1,225	0	
P. M.																
12:13	965.2	31.3	52	sse.	8.9	1,466	854.5	20.3	0.65	75	17.86	ssw.	13.0	1,437	0	
						1,500	850.8	21.0		69	17.16	ssw.	12.9	1,470	0	
12:24	965.2	31.8	53	se.	8.5	1,587	842.7	22.8	−2.07	54	14.99	ssw.	12.7	1,555	0	
						1,750	826.2	21.2		56	14.10	ssw.	12.3	1,715	0	
						2,000	803.0	18.8		60	13.02	ssw.	11.7	1,960	0	
						2,250	780.1	16.4		63	11.75	sw.	11.1	2,205	0	
12:50	965.2	32.0	53	sse.	8.9	2,447	762.7	14.5	0.97	66	10.90	sw.	10.6	2,398	0	1/10 A.Cu., sw.; few Cu., sw.
						2,500	757.8	14.0		68	10.87	sw.	10.5	2,450	80	
						2,750	736.0	11.4		75	10.11	sw.	10.3	2,694	490	
						3,000	714.9	8.8		82	9.29	sw.	10.0	2,939	840	
1:45	965.4	33.0	49	se.	8.5	3,008	713.9	8.7	1.03	82	9.22	sw.	10.0	2,947	840	
						3,250	693.1	6.6		83	8.09	sw.	9.2	3,184	960	
						3,500	672.1	4.3		85	7.06	sw.	8.4	3,429	1,080	
2:15	965.5	32.5	51	sse.	6.7	3,596	664.8	3.5	0.95	85	6.67	sw.	8.1	3,522		
						3,500	672.1	4.5		83	6.99	sw.	8.2	3,429	1,080	Few A.Cu., sw.; few Cu., sw.
						3,250	693.1	7.0		79	7.92	sw.	8.5	3,184	960	
						3,000	714.5	9.6		74	8.84	sw.	8.7	2,939	840	
						2,750	736.8	12.1		70	9.88	sw.	9.0	2,694	800	
2:40	965.5	33.1	48	sse.	7.2	2,617	748.4	13.5	0.95	68	10.52	sw.	9.1	2,564	755	
						2,500	759.0	14.6		66	10.97	sw.	9.3	2,450	660	
						2,250	781.8	17.0		62	12.02	sw.	9.8	2,205	480	
						2,000	804.6	19.4		58	13.07	ssw.	10.2	1,960	440	
						1,750	828.2	21.8		54	14.10	ssw.	10.6	1,715	390	
						1,500	852.1	24.1		51	15.31	ssw.	11.0	1,470	220	
3:10	965.4	32.8	50	se.	7.6	1,473	854.5	24.4	−0.95	51	15.59	ssw.	11.0	1,444	190	
3:19	965.3	32.8	50	sse.	7.6	1,251	876.5	22.3	0.93	79	21.27	ssw.	11.6	1,226	0	Thunder clouds west of station.
						1,000	902.2	24.6		73	22.59	s.	12.1	980	0	
3:28	965.2	33.3	51	sse.	8.0	811	921.5	26.4	1.61	68	23.41	sse.	12.5	795	0	
						750	928.1	27.4		66	24.10	sse.	11.8	735	0	
						500	954.2	31.4		56	25.75	sse.	8.8	490	0	
3:34	965.1	33.1	52	sse.	7.6	396	965.1	33.1		52	26.31	sse.	7.6	388		1/10 Cu., sw.

July 18, 1916, series (No. 3).

P. M.																
4:13	963.8	33.0	52	sse.	7.2	396	963.8	33.0		52	26.17	sse.	7.2	388		Few A.Cu., sw.
						500	952.0	31.6		54	25.11	sse.	7.9	490	0	
						750	926.0	28.4		60	23.22	sse.	9.6	735	0	
4:20	963.8	33.0	52	sse.	5.8	816	919.6	27.5	1.31	62	22.77	sse.	10.0	800	0	
						1,000	900.4	25.4		67	21.74	s.	10.0	980	0	
4:29	963.8	32.8	52	sse.	6.3	1,170	883.3	23.4	1.16	71	20.43	s.	10.0	1,147	0	
						1,250	875.8	24.8		66	20.66	ssw.	10.9	1,225	0	
4:35	963.8	32.7	52	sse.	7.2	1,273	873.1	25.2	− 1.75	64	20.52	ssw.	11.1	1,248	0	
						1,500	851.0	23.4		62	17.84	ssw.		1,470	0	
						1,750	827.0	21.4		60	15.29	ssw.		1,715	130	1/10 St.Cu., sw.
						2,000	803.1	19.4		58	13.07	sw.		1,960		
						2,250	780.0	17.4		56	11.13	sw.		2,205		
						2,500	757.1	15.4		53	9.28	sw.		2,450		
6:00	963.5	32.0	57	se.	6.7	2,598	748.7	14.6	0.80	52	8.64	sw.		2,546		
						2,750	735.0	13.3		53	8.09	sw.		2,694		
						3,000	713.2	11.2		53	7.05	sw.		2,939		
						3,250	692.3	9.0		54	6.20	sw.		3,184		
6:40	963.2	30.6	60	se.	7.2	3,269	691.1	8.8	0.88	54	6.12	sw.		3,202		
						3,250	692.3	9.0		54	6.20	sw.		3,184		
						3,000	713.2	11.3		55	7.36	sw.		2,939		
						2,750	735.0	13.5		56	8.66	sw.		2,694		
						2,500	757.1	15.8		57	10.23	sw.		2,450		
7:00	963.1	30.6	61	se.	7.6	2,458	761.4	16.2	0.84	57	10.50	sw.		2,409		
						2,250	780.0	17.9		58	11.90	sw.		2,205		
						2,000	803.1	20.0		59	13.79	sw.		1,960		
						1,750	827.0	22.1		60	15.96	sw.		1,715	0	
7:30	963.5	29.6	67	se.	4.9	1,707	831.1	22.5	0.89	60	16.36	sw.		1,673	0	
						1,500	851.0	24.3		57	17.32	sw.		1,470	0	
						1,250	875.8	26.6		54	18.81	sw.		1,225	0	
						1,000	900.4	28.8		50	19.80	sw.		980	0	
7:45	963.6	29.2	70	se.	4.9	837	917.9	30.3	−12.12	48	20.73	sw.		811	0	
7:47	963.6	29.2	70	se.	4.9	794	921.4	26.3	0.68	68	23.27	sw.		779	0	
						750	926.0	26.6		68	23.68	ssw.		735	0	
						500	952.0	28.3		69	26.55	sse.		490	0	
7:50	963.7	29.0	70	se.	5.4	396	963.7	29.0		70	28.05	se.	5.4	388		Few St.Cu., sw.

TABLE 5.—*Free-air data from kite flights at Drexel Aerological Station, July, 1916*—Continued.

July 18, 1916, series (No. 4).

Surface.						At different heights above sea.										
Time.	Pressure.	Temperature.	Relative humidity.	Wind.		Altitude.	Pressure.	Temperature.	$\frac{\Delta t}{100\ m.}$	Humidity.		Wind.		Potential.		Remarks.
				Dir.	Vel.					Rel.	Vap. pres.	Dir.	Vel.	Gravity.	Electric.	
P. M.	*mb.*	°*C.*	%		*m. p. s.*	*m.*	*mb.*	°*C.*		%	*mb.*		*m. p. s.*	10^5 *ergs.*	*volts.*	
8:23	964.1	27.8	71	se.	4.9	396	964.1	27.8	.....	71	26.53	se.	4.9	388	.....	Few St.Cu.
						500	953.1	27.4	.....	72	26.29	sse.	6.0	490	0	
8:25	964.1	27.8	70	se.	4.9	701	931.5	26.6	0.39	74	25.77	sw.	8.1	687	0	
8:32	964.2	27.6	70	se.	5.4	752	926.2	29.1	− 4.90	60	24.18	sw.	18.8	737	0	
						1,000	900.5	27.7	.....	58	21.55	sw.	14.5	980	0	
8:43	964.3	27.4	68	se.	5.4	1,181	882.7	26.7	0.56	56	19.62	sw.	11.3	1,158	0	
						1,250	875.2	26.1	.....	57	19.28	sw.	11.1	1,225	0	
						1,500	850.2	23.8	.....	58	17.10	sw.	10.2	1,470	0	
						1,750	826.8	21.6	.....	60	15.48	sw.	9.4	1,715	0	
						2,000	803.8	19.4	.....	62	13.97	sw.	8.6	1,960	0	
						2,250	781.0	17.2	.....	64	12.56	sw.	7.7	2,205	0	
10:15	964.6	26.1	74	se.	3.6	2,262	779.7	17.1	0.89	64	12.48	sw.	7.7	2,217	0	Thunderstorm in wnw.
						2,500	758.1	14.7	.....	69	11.54	sw.	7.5	2,450	600	
						2,750	732.0	12.2	.....	74	10.52	sw.	7.4	2,694	830	
						3,000	706.0	9.7	.....	79	9.50	sw.	7.2	2,939	730	
10:41	964.7	26.1	73	se.	5.8	3,126	703.8	8.4	1.01	81	8.93	sw.	7.1	3,062	.....	
						3,000	706.0	9.7	.....	79	9.50	sw.	7.4	2,939	730	
						2,750	732.0	12.2	.....	76	10.80	sw.	8.0	2,694	680	
						2,500	758.1	14.7	.....	72	12.05	sw.	8.6	2,450	640	
11:20	964.8	26.4	78	sse.	4.9	2,245	781.3	17.3	0.79	68	13.43	sw.	9.2	2,200	510	
						2,000	803.8	19.2	.....	66	14.68	sw.	11.0	1,960	270	
						1,750	826.8	21.2	.....	64	16.12	sw.	12.7	1,715	220	
						1,500	850.2	23.2	.....	62	17.63	ssw.	14.4	1,470	120	
						1,250	875.2	25.1	.....	61	19.44	ssw.	16.2	1,225	40	
11:38	964.8	26.6	78	s.	4.9	1,166	884.5	25.8	0.34	60	19.94	ssw.	16.8	1,143	10	
						1,000	900.5	26.4	.....	64	22.04	ssw.	17.2	980	0	
						750	926.6	27.2	.....	70	25.26	s.	17.8	735	0	
11:45	964.8	26.5	78	sse.	4.5	690	933.3	27.4	− 0.27	72	26.29	s.	18.0	677	0	
						500	953.1	26.9	.....	77	27.30	s.	9.3	490	0	Lightning.
11:56	964.8	26.6	79	s.	4.5	396	964.8	26.6	.....	79	27.52	s.	4.5	388	.....	Few St.Cu.

July 19, 1916, series (No. 5).

A. M.																
12:35	964.6	26.2	81	sse.	4.0	396	964.6	26.2	.....	81	27.56	sse.	4.0	388	.....	1/10 St.Cu., sw.
						500	952.9	27.0	.....	73	26.03	sse.	8.5	490	0	
12:42	964.6	26.0	82	sse.	4.5	746	927.2	29.0	− 0.80	53	21.24	sse.	19.0	731	0	
						1,000	901.0	27.9	.....	51	19.17	s.	15.2	980	0	
12:55	964.5	26.0	82	sse.	4.0	1,175	883.5	27.0	0.47	49	17.47	s.	12.6	1,152	0	
						1,250	876.0	26.4	.....	49	16.87	ssw.	12.2	1,225	40	
						1,500	851.2	24.2	.....	50	15.10	sw.	10.9	1,470	160	
1:08	964.6	25.9	83	sse.	4.0	1,523	849.4	24.0	0.86	50	14.92	sw.	10.8	1,493	170	
						1,750	827.7	21.7	.....	55	14.28	sw.	9.1	1,715	170	
1:39	965.1	25.6	84	ssw.	4.5	1,913	812.7	20.1	1.00	58	13.65	sw.	7.9	1,875	.....	7/10 St.Cu., sw.
						2,000	804.5	19.3	.....	57	12.76	sw.	.....	1,960	.....	
						2,250	782.1	16.9	.....	54	10.40	sw.	.....	2,205	.....	
						2,500	760.2	14.5	.....	51	8.42	sw.	.....	2,450	.....	
						2,750	738.5	12.1	.....	48	6.78	sw.	.....	2,694	.....	Thunderstorm approaching station.
						3,000	716.1	9.7	.....	45	5.41	sw.	.....	2,939	.....	9/10 St.Cu., sw.
						3,250	694.4	7.3	.....	42	4.30	sw.	.....	3,184	.....	
2:00	965.5	26.6	80	wsw.	6.7	3,262	693.1	7.2	0.96	42	4.27	sw.	.....	3,196	.....	Meteorograph clock stopped.

July 19, 1916, series (No. 6).

P. M.																
3:30	969.6	27.8	66	n.	3.1	396	969.6	27.8	.....	66	24.66	n.	3.1	388	.....	3/10 Ci., sw.; 2/10 St.Cu., nnw.
3:45	969.4	28.2	58	n.	3.1	500	958.2	27.2	.....	64	23.09	nnw.	6.2	490	0	
						599	947.4	26.6	0.59	63	21.94	nnw.	9.1	587	0	
						750	931.6	25.2	.....	65	20.84	nnw.	10.3	735	0	
						1,000	905.0	23.0	.....	68	19.11	nnw.	12.4	980	0	
3:53	969.3	28.4	58	n.	4.0	1,035	901.5	22.7	0.89	68	18.76	nnw.	12.7	1,015	0	
						1,250	879.6	21.2	.....	68	17.12	nnw.	13.6	1,225	0	
						1,500	854.2	19.6	.....	68	15.51	nnw.	14.7	1,470	100	St.Cu. base about 1,400 m.
4:19	969.1	28.7	60	n.	3.6	1,582	846.2	19.0	0.68	68	14.94	nnw.	15.1	1,551	210	
						1,750	830.0	18.3	.....	61	12.83	nnw.	16.1	1,715	430	
						2,000	806.2	17.3	.....	52	10.27	n.	17.7	1,960	760	
4:40	969.0	28.6	56	nne.	4.9	2,244	782.9	16.3	0.41	42	7.78	n.	19.2	2,199	960	
						2,250	783.2	16.2	.....	42	7.74	n.	19.2	2,205	970	
						2,500	759.8	13.8	.....	42	6.63	n.	18.8	2,450	1,080	
						2,750	737.0	11.4	.....	41	5.53	n.	18.3	2,694	.....	
4:55	968.9	28.6	58	nne.	4.0	2,796	732.9	11.0	0.88	41	5.38	n.	18.2	2,737	.....	2/10 Ci., sw.; 2/10 St.Cu., nnw.
						2,750	737.0	11.4	.....	41	5.53	n.	18.4	2,694	.....	
						2,500	759.1	13.4	.....	40	6.15	n.	19.4	2,450	1,080	
						2,250	781.9	15.4	.....	39	6.82	n.	20.4	2,205	970	
5:08	968.8	28.6	58	nne.	3.6	2,196	786.5	15.8	0.15	39	7.00	n.	20.6	2,152	860	
						2,000	804.6	16.1	.....	46	8.42	n.	19.1	1,960	540	
						1,750	828.1	16.5	.....	55	10.32	n.	17.3	1,715	130	
5:17	968.7	28.5	59	nne.	3.1	1,537	849.8	16.8	0.89	62	11.86	n.	15.7	1,506	0	2/10 Ci., sw.; 1/10 St.Cu., n.
						1,500	852.8	17.1	.....	63	12.28	n.	15.0	1,470	0	
						1,250	878.2	19.4	.....	68	15.32	n.	10.4	1,225	0	
5:23	968.7	28.8	60	nne.	3.6	1,101	894.0	20.7	0.92	71	17.34	n.	7.7	1,079	0	
						1,000	904.2	21.6	.....	70	18.06	n.	8.0	980	0	
						750	931.0	23.9	.....	66	19.58	n.	8.8	735	0	
5:29	968.6	28.7	59	nne.	3.1	654	940.9	24.8	1.47	65	20.35	n.	9.1	641	0	
						500	957.0	27.1	.....	61	21.88	nne.	5.5	490	0	
5:32	968.6	28.6	59	nne.	3.1	396	968.6	28.6	.....	59	23.10	nne.	3.1	388	.....	3/10 Ci., sw.; 1/10 St.Cu., nw.

TABLE 5.—*Free-air data from kite flights at Drexel Aerological Station, July, 1916*—Continued.

July 20, 1916.

Surface.						At different heights above sea.										
Time.	Pressure.	Temperature.	Relative humidity.	Wind.		Altitude.	Pressure.	Temperature.	$\frac{\Delta t}{100\ m.}$	Humidity.		Wind.		Potential.		Remarks.
				Dir.	Vel.					Rel.	Vap. pres.	Dir.	Vel.	Gravity.	Electric.	
P. M.	*mb.*	°*C.*	%		*m. p. s.*	*m.*	*mb.*	°*C.*		%	*mb.*		*m. p. s.*	10^5 *ergs.*	*volts.*	
1:15	971.2	27.7	38	ne.	5.8	396	971.2	27.7	.....	38	14.12	ne.	5.8	388	.....	Cloudless.
						500	960.0	26.6	.....	38	13.24	ne.	7.7	490	0	
						750	933.0	23.8	.....	39	11.50	ne.	12.2	735	0	
1:24	971.1	29.0	36	ne.	8.0	786	929.0	23.4	1.10	39	11.22	ne.	12.8	771	0	
						1,000	906.1	21.7	.....	39	10.12	ne.	13.9	980	310	
						1,250	853.3	19.8	.....	38	8.78	ne.	15.2	1,225	520	
1:44	971.0	28.8	37	ne.	6.3	1,425	862.8	18.4	0.78	38	8.04	ne.	16.1	1,397	330	Few Cu. on southern horizon.
						1,500	855.1	17.9	.....	38	7.79	ne.	15.9	1,470	260	
						1,750	830.8	16.3	.....	36	6.67	nne.	15.4	1,715	890	
						2,000	806.7	14.7	.....	35	5.86	n.	14.9	1,960	990	
3:14	970.8	29.2	35	ne.	4.9	2,161	790.8	13.6	0.65	34	5.30	n.	14.6	2,118	1,105	
						2,250	783.0	13.2	.....	33	5.01	n.	15.0	2,205	1,160	
						2,500	760.0	12.0	.....	31	4.35	n.	16.2	2,450	1,330	
						2,750	737.0	10.9	.....	29	3.78	n.	17.3	2,694	1,490	
3:31	970.1	29.4	35	ne.	3.6	2,958	718.7	9.9	0.54	27	3.29	n.	18.3	2,898	.....	
						2,750	737.0	11.6	.....	26	3.55	n.	19.1	2,694	.....	
3:44	970.0	29.3	34	ne.	4.0	2,502	759.1	12.7	−0.14	24	3.53	n.	20.0	2,452	.....	
3:46	970.0	29.2	34	ne.	4.0	2,283	778.9	12.4	0.81	24	3.46	n.	15.0	2,237	.....	
						2,250	783.0	12.7	.....	24	3.53	n.	14.8	2,205	.....	
						2,000	806.7	14.7	.....	26	4.35	n.	13.4	1,960	.....	
						1,750	830.8	16.8	.....	28	5.36	n.	12.0	1,715	.....	
						1,500	855.1	18.8	.....	30	6.51	n.	10.6	1,470	.....	
						1,250	853.3	20.8	.....	32	7.86	n.	9.2	1,225	.....	
						1,000	905.8	22.9	.....	34	9.50	n.	7.9	980	.....	
4:03	969.9	29.3	35	ne.	2.7	835	922.7	24.2	0.53	35	10.57	n.	7.0	819	.....	
						750	931.7	24.6	.....	36	11.14	n.	6.7	735	.....	
4:14	969.8	29.4	35	ne.	3.1	531	955.1	25.8	2.67	37	12.30	n.	5.8	521	.....	
						500	958.1	26.6	.....	36	12.54	nne.	5.3	490	.....	
4:20	969.8	29.4	34	ne.	3.6	396	969.8	29.4	.....	34	13.94	ne.	3.6	388	.....	Cloudless.

July 21, 1916.

A. M.																
8:47	970.7	25.4	48	s.	3.1	396	970.7	25.4	.....	48	15.58	s.	3.1	388	.....	3/10 Ci., nw.; 2/10 St. Cu., nw.
						500	958.7	24.8	.....	48	15.03	s.	3.5	490	0	
9:13	970.5	26.6	48	s.	4.5	607	947.4	24.2	0.85	48	14.50	s.	4.0	595	0	
						500	958.7	25.4	.....	49	15.90	s.	4.3	490	0	
9:45	970.4	26.6	49	s.	4.5	396	970.4	26.6	.....	49	17.07	s.	4.5	388	.....	

July 22, 1916.

A. M.																
10:53	967.6	31.8	42	s.	4.0	396	967.6	31.8	.....	42	19.75	s.	4.0	388	.....	1/10 Ci. Cu., nw.; 2/10 Cu., sw.
						500	966.2	30.4	.....	43	18.67	s.	4.4	490	0	
						750	930.2	27.1	.....	44	15.78	s.	5.3	735	0	
P. M.																
12:29	968.0	32.6	41	s.	4.5	803	924.9	26.4	1.33	45	15.49	s.	5.5	787	0	
						1,000	904.8	24.6	.....	51	15.78	s.	5.8	980	0	
3:08	968.6	33.6	40	sw.	7.2	1,245	880.0	22.4	0.90	58	15.71	ssw.	6.1	1,220	0	1/10 Cu., sw.
						1,500	854.4	20.7	.....	52	12.70	ssw.	5.8	1,470	0	
						1,750	830.0	18.9	.....	47	10.26	s.	5.6	1,715	0	
4:00	968.6	33.4	35	sw.	4.9	1,928	813.2	17.6	0.78	43	8.66	s.	5.4	1,890	0	
						1,750	830.0	19.1	.....	44	9.73	s.	5.8	1,715	0	
						1,500	855.0	21.2	.....	45	11.33	s.	6.4	1,470	0	
4:13	968.7	33.4	34	sw.	5.4	1,266	878.3	23.2	1.17	46	13.08	s.	7.0	1,241	0	
						1,250	879.5	23.4	.....	46	13.24	s.	7.0	1,225	0	
						1,000	906.0	26.3	.....	43	14.71	ssw.	6.3	980	0	
						750	932.0	29.3	.....	39	15.90	ssw.	5.5	735	0	
						500	967.9	32.2	.....	36	17.32	sw.	4.8	490	0	
4:30	968.8	33.4	35	sw.	4.5	396	968.8	33.4	.....	35	18.01	sw	4.5	388	.....	2/10 Ci., nw.

July 23, 1916.

A. M.																
9:42	968.6	28.4	54	sse.	5.8	396	968.6	28.4	.....	54	20.90	sse.	5.8	388	.....	8/10 A.Cu., sw.
						500	957.0	26.8	.....	54	19.03	s.	9.3	490	0	
9:48	968.6	28.8	54	s.	5.4	571	949.7	25.7	1.54	54	17.84	ssw.	11.7	560	0	
						750	930.2	27.0	.....	47	16.76	ssw.	13.8	735	0	
9:52	968.6	28.8	53	sse.	4.9	854	919.8	27.7	0.71	43	15.97	ssw.	15.0	837	0	
						1,000	904.2	26.4	.....	43	14.80	ssw.	14.5	980	0	
						1,250	879.0	24.1	.....	43	12.91	ssw.	13.6	1,225	0	
						1,500	854.0	21.8	.....	43	11.23	ssw.	12.7	1,470	0	
10:14	968.4	29.8	49	s.	4.9	1,619	842.8	20.7	0.92	43	10.50	ssw.	12.3	1,587	0	3/10 A.Cu., sw.
						1,750	830.0	19.8	.....	44	10.16	ssw.	12.6	1,715	220	
						2,000	806.4	18.0	.....	46	9.49	sw.	13.1	1,960	630	
						2,250	783.8	16.2	.....	48	8.85	sw.	13.6	2,205	850	
						2,500	761.1	14.4	.....	49	8.04	wsw.	14.1	2,450	1,050	
10:52	968.0	31.0	46	ssw.	8.5	2,649	747.1	13.3	0.72	50	7.64	wsw.	14.4	2,596	1,170	
						2,750	743.1	12.3	.....	53	7.58	wsw.	13.9	2,694	1,180	
						3,000	716.8	9.8	.....	60	7.27	wsw.	12.5	2,939	1,510	
						3,250	695.2	7.3	.....	67	6.85	wsw.	11.1	3,184	1,730	
11:46	967.7	32.6	43	ssw.	8.5	3,407	681.8	5.7	1.00	71	6.50	wsw.	10.3	3,337	1,850	
						3,500	674.7	5.1	.....	69	6.07	wsw.	10.3	3,429	1,920	
						3,750	654.5	3.4	.....	64	4.99	wsw.	10.4	3,673	1,990	
						4,000	634.4	1.7	.....	59	4.08	wsw.	10.5	3,918	.....	

TABLE 5.—*Free-air data from kite flights at Drexel Aerological Station, July, 1916*—Continued.

July 23, 1916—Continued.

Surface.						At different heights above sea.											
Time.	Pressure.	Temperature.	Relative humidity.	Wind.		Altitude.	Pressure.	Temperature.	$\frac{\Delta t}{100\ m.}$	Humidity.		Wind.		Potential.		Remarks.
				Dir.	Vel.					Rel.	Vap. pres.	Dir.	Vel.	Gravity.	Electric.	
P. M.	*mb.*	°*C.*	%		*m. p. s.*	*m.*	*mb.*	°*C.*		%	*mb.*		*m. p. s.*	10^5 *ergs.*	*volts.*	
12:24	967.4	33.6	40	sw.	8.5	4,011	633.6	1.6	0.74	59	4.05	wsw.	10.5	3,929	.....	
						4,000	634.4	1.7	.....	59	4.08	wsw.	10.5	3,918	.....	
						3,750	654.5	3.7	.....	60	4.78	wsw.	10.7	3,673	1,870	
						3,500	674.7	5.7	.....	62	5.68	wsw.	11.0	3,429	1,310	
						3,250	695.2	7.7	.....	63	6.62	wsw.	11.2	3,184	1,010	Few Cu.
1:03	967.2	34.9	35	sw.	10.3	3,089	709.5	9.0	1.25	64	7.35	wsw.	11.3	3,026	930	
						3,000	716.8	10.1	.....	60	7.42	wsw.	11.3	2,939	890	
						2,750	743.1	13.2	.....	50	7.58	sw.	11.2	2,694	740	
1:20	967.1	34.8	34	sw.	8.9	2,601	751.8	15.1	1.11	44	7.55	sw.	11.2	2,549	700	
						2,500	761.1	16.2	.....	40	7.37	sw.	11.9	2,450	660	
						2,250	783.8	19.0	.....	31	6.81	ssw.	13.5	2,205	560	
1:34	967.0	35.2	32	sw.	10.7	2,068	800.0	21.0	0.62	25	6.22	ssw.	14.7	2,027	490	
						2,000	806.4	21.4	.....	25	6.37	ssw.	15.1	1,960	430	
						1,750	830.0	23.0	.....	26	7.31	ssw.	16.6	1,715	220	
1:41	967.0	35.0	32	sw.	10.3	1,682	836.1	23.4	−0.96	26	7.48	ssw.	17.0	1,649	170	
1:45	967.0	34.9	32	sw.	11.6	1,546	849.5	22.1	1.13	42	11.17	ssw.	10.3	1,515	130	
						1,500	854.0	22.6	.....	42	11.52	ssw.	10.4	1,470	110	
						1,250	879.0	25.4	.....	42	13.63	ssw.	10.8	1,225	30	
						1,000	904.2	28.3	.....	42	16.16	ssw.	11.3	980	0	
2:02	966.9	35.4	29	ssw.	8.5	863	918.0	29.8	1.11	42	17.62	ssw.	11.5	846	0	
						750	930.0	31.1	.....	39	17.63	ssw.	11.4	735	0	
						500	955.8	33.8	.....	33	17.36	ssw.	11.3	490	0	
2:07	966.8	35.0	31	ssw.	11.2	396	966.8	35.0	.....	31	17.41	ssw.	11.2	388	.....	Cloudless.

July 24, 1916 (No. 1).

A. M.																
9:13	970.3	25.4	61	e.	5.8	396	970.3	25.4	.....	61	19.79	e.	5.8	388	.....	7/10 Ci. Cu., sw.
						500	958.5	24.9	.....	61	19.22	ese.	5.9	490	0	
						750	931.8	23.8	.....	60	17.69	ese.	5.9	735	0	
11:17	969.9	29.5	51	ese.	3.1	829	923.4	23.4	0.46	60	17.27	se.	6.0	813	0	
11:25	969.9	29.6	51	ese.	2.7	995	906.1	25.5	−1.80	54	17.63	se.	6.0	975	0	
11:32	969.9	29.8	50	ese.	3.6	913	914.7	23.6	1.32	60	17.48	se.	6.6	895	0	
						750	931.8	25.7	.....	56	18.50	se.	5.5	735	0	
						500	958.5	29.0	.....	49	19.63	ese.	3.8	490	0	
11:43	969.9	30.4	46	ese.	3.1	396	969.9	30.4	.....	46	19.98	ese.	3.1	388	.....	8/10 St. Cu., sw.

July 24, 1916 (No. 2).

P. M.																
7:39	968.2	30.8	48	s.	4.5	396	968.2	30.8	.....	48	21.33	s.	4.5	388	.....	1/10 St.Cu., nw.
						500	956.8	30.4	.....	46	19.98	s.	6.5	490	0	
						750	930.2	29.5	.....	40	16.50	s.	11.3	735	0	
7:48	968.2	30.5	52	s.	3.6	848	920.5	29.1	0.38	38	15.31	s.	13.2	831	0	
						1,000	904.8	27.9	.....	35	13.16	s.	11.8	980	0	
						1,250	879.7	25.9	.....	30	10.03	s.	9.4	1,225	0	
8:00	968.2	29.8	48	s.	4.5	1,257	879.0	25.8	0.81	30	9.97	s.	9.3	1,232	0	
						1,500	855.0	22.9	.....	39	10.89	s.	8.7	1,470	0	
						1,750	831.0	19.9	.....	48	11.16	ssw.	8.1	1,715	0	
8:41	968.1	28.9	51	s.	3.6	1,875	818.6	18.4	1.20	53	11.21	ssw.	7.8	1,838	0	
						2,000	806.5	17.4	.....	50	9.94	ssw.	7.9	1,960	0	
						2,250	773.0	15.4	.....	45	7.88	ssw.	8.1	2,205	260	
						2,500	760.0	13.4	.....	40	6.15	sw.	8.3	2,450	610	
9:20	968.0	28.2	52	s.	4.0	2,676	744.5	12.0	0.80	36	5.05	sw.	8.5	2,622	.....	
						2,750	737.8	11.5	.....	35	4.75	sw.	8.8	2,694	.....	
						3,000	716.0	9.6	.....	33	3.94	sw.	10.0	2,939	.....	
9:37	968.0	28.0	52	s.	4.5	3,166	702.3	8.4	0.78	32	3.53	sw.	10.7	3,102	.....	
						3,000	716.0	9.8	.....	33	4.00	sw.	11.0	2,939	.....	
						2,750	737.8	11.8	.....	33	4.57	sw.	11.5	2,694	.....	
						2,500	760.0	13.9	.....	34	5.40	sw.	12.0	2,450	740	
9:51	968.0	27.7	53	s.	4.0	2,466	763.5	14.2	0.84	34	5.50	sw.	12.1	2,416	720	
						2,250	773.0	16.0	.....	35	6.36	sw.	11.9	2,205	540	
						2,000	806.5	18.1	.....	36	7.48	sw.	11.7	1,960	260	
						1,750	831.0	20.3	.....	36	8.58	ssw.	11.4	1,715	0	
						1,500	855.0	22.4	.....	37	10.02	ssw.	11.2	1,470	0	
10:13	968.0	27.6	53	s.	4.5	1,269	877.3	24.3	1.16	38	11.55	ssw.	11.0	1,244	0	
						1,250	879.7	24.5	.....	38	11.68	ssw.	11.2	1,225	0	
						1,000	904.8	27.4	.....	37	13.51	ssw.	13.2	980	0	
10:22	968.0	27.8	52	s.	4.5	846	920.5	29.2	0.91	37	15.00	ssw.	14.5	829	0	
						750	930.2	30.1	.....	37	15.80	ssw.	13.9	735	0	
10:29	968.0	27.8	49	s.	4.9	594	946.9	31.5	−1.85	36	16.65	s.	12.9	582	0	
						500	956.8	29.7	.....	42	17.52	s.	9.1	490	0	
10:30	968.0	27.8	49	s.	4.9	396	968.0	27.8	.....	49	18.31	s.	4.9	388	.....	Few Cu., nw.

TABLE 5.—*Free-air data from kite flights at Drexel Aerological Station, July, 1916*—Continued.

July 25, 1916, series (No. 1).

Surface.						At different heights above sea.											Remarks.
Time.	Pressure.	Temperature.	Relative humidity.	Wind.		Altitude.	Pressure.	Temperature.	$\frac{\Delta t}{100\ m.}$	Humidity.		Wind.		Potential.			
				Dir.	Vel.					Rel.	Vap. pres.	Dir.	Vel.	Gravity.	Electric.		
A. M.	*mb.*	*°C.*	%		*m. p. s.*	*m.*	*mb.*	*°C.*		%	*mb.*		*m. p. s.*	*10^5 ergs.*	*volts.*		
6:44	969.7	24.0	58	ssw.	4.5	396	969.7	24.0	.....	58	17.31	ssw.	4.5	388	.....		1/10 Ci., nw.
						500	958.1	25.5	.....	54	17.63	sw.	10.3	490	0		
6:48	969.8	24.2	57	ssw.	4.9	704	936.5	28.3	−1.40	47	18.09	wsw.	21.7	690	0		
						750	931.8	28.1	.....	46	17.49	wsw.	21.1	735	0		
						1,000	906.0	26.7	.....	41	14.37	sw.	17.6	980	0		
7:05	970.0	24.6	57	ssw.	4.9	1,248	880.8	25.4	0.53	36	11.68	sw.	14.1	1,223	0		2/10 Ci., nw.
						1,500	856.0	23.1	.....	37	10.46	sw.	15.0	1,470	0		
						1,750	831.4	20.8	.....	38	9.34	ssw.	15.8	1,715	250		
						2,000	807.5	18.5	.....	39	8.31	ssw.	16.7	1,960	690		
7:30	970.4	26.1	52	ssw.	5.8	2,112	797.5	17.5	0.91	39	7.80	ssw.	17.1	2,070	890		
						2,250	784.5	16.3	.....	38	7.04	ssw.	16.2	2,205	710		
						2,500	762.0	14.2	.....	36	5.83	ssw.	14.5	2,450	1,390		
						2,750	740.0	12.2	.....	34	4.83	ssw.	12.7	2,694	1,460		
						3,000	718.2	10.1	.....	32	3.96	ssw.	11.0	2,939	1,410		
8:37	970.9	27.5	49	sw.	5.8	3,059	713.3	9.6	0.83	32	3.82	ssw.	10.6	2,997	1,600		
						3,250	697.2	7.9	.....	34	3.62	ssw.	11.0	3,184	1,930		3/10 Ci., nw.
						3,500	677.0	5.6	.....	37	3.37	ssw.	11.5	3,429	1,640		
						3,750	656.9	3.4	.....	40	3.12	ssw.	12.0	3,673	2,200		
						4,000	637.0	1.1	.....	44	2.91	s.	12.5	3,918	.....		5/10 Ci., nw.
						4,250	617.9	−1.2	.....	47	2.60	s.	13.0	4,162	.....		
10:01	971.3	30.9	43	ssw.	7.6	4,471	600.4	−3.2	0.94	50	2.34	s.	13.5	4,378	.....		
						4,250	617.9	−1.1	.....	47	2.62	s.	13.4	4,162	.....		
						4,000	637.0	1.4	.....	44	2.97	s.	13.3	3,918	.....		
						3,750	656.9	3.8	.....	40	3.21	s.	13.2	3,673	1,960		
						3,500	677.0	6.2	.....	37	3.51	s.	13.2	3,429	1,890		
						3,250	697.8	8.6	.....	34	3.80	s.	13.1	3,184	1,830		
10:41	971.3	32.5	36	ssw.	8.5	3,142	707.0	9.6	0.85	33	3.94	s.	13.1	3,078	1,800		
						3,000	719.2	10.8	.....	34	4.40	s.	13.4	2,939	1,650		6/10 Ci., nw.
						2,750	741.0	12.9	.....	35	5.21	s.	13.9	2,694	1,390		
						2,500	763.0	15.1	.....	37	6.35	ssw.	14.3	2,450	1,165		
						2,250	785.6	17.2	.....	38	7.46	ssw.	14.8	2,205	940		
11:07	971.3	34.2	29	ssw.	9.8	2,229	787.8	17.4	0.79	38	7.55	ssw.	14.8	2,184	920		
						2,000	808.8	19.2	.....	36	8.01	ssw.	15.2	1,960	790		
						1,750	832.6	21.2	.....	34	8.56	sw.	15.6	1,715	580		
						1,500	857.1	23.1	.....	32	9.05	sw.	16.0	1,470	370		
11:28	971.1	33.8	31	ssw.	8.0	1,314	875.7	24.6	0.74	31	9.59	sw.	16.3	1,288	170		
						1,250	882.2	25.1	.....	32	10.20	sw.	15.9	1,225	150		
						1,000	907.8	26.9	.....	36	12.76	ssw.	14.2	980	60		
11:37	971.1	34.5	27	sw.	8.9	840	924.1	28.1	1.37	38	14.45	ssw.	13.2	824	0		
						750	933.6	29.3	.....	36	14.68	ssw.	12.6	735	0		
						500	960.1	32.8	.....	30	14.93	ssw.	11.0	490	0		
11:42	971.0	34.2	27	ssw.	10.3	396	971.0	34.2	.....	27	14.53	ssw.	10.3	388	.....		7/10 Ci., nw.

July 25, 1916, series (No. 2).

P. M.																	
12:27	970.6	34.9	28	ssw.	11.6	396	970.6	34.9	.....	28	15.66	ssw.	11.6	388	.....		7/10 Ci., nw.
						500	959.5	33.3	.....	29	14.84	ssw.	11.7	490	0		
						750	932.8	29.5	.....	32	13.20	ssw.	12.1	735	0		
12:34	970.6	34.8	26	ssw.	10.3	840	923.7	28.1	1.53	33	12.55	ssw.	12.2	824	0		
						1,000	906.2	26.4	.....	35	12.05	ssw.	13.2	980	0		
						1,250	881.0	23.7	.....	38	11.14	ssw.	14.8	1,225	0		
12:46	970.4	35.4	24	ssw.	13.9	1,259	880.4	23.6	1.07	38	11.07	ssw.	14.8	1,234	0		4/10 Ci., nw.; 4/10 Cl.St., nw.
						1,500	856.0	21.5	.....	36	9.23	ssw.	14.9	1,470	280		
12:58	970.3	35.1	24	ssw.	13.0	1,702	836.5	19.8	0.86	35	8.08	ssw.	15.0	1,668	515		
						1,750	832.2	19.4	.....	35	7.89	ssw.	15.2	1,715	560		
						2,000	808.1	17.4	.....	34	6.76	ssw.	16.4	1,960	770		
						2,250	784.6	15.5	.....	33	5.81	ssw.	17.5	2,205	980		
1:22	970.2	35.0	25	ssw.	9.4	2,463	764.9	13.8	0.79	32	5.05	ssw.	18.5	2,414	1,150		
						2,500	761.5	13.5	.....	32	4.95	ssw.	18.5	2,450	1,180		
						2,750	738.6	11.2	.....	32	4.26	ssw.	18.4	2,694	1,450		
						3,000	716.5	9.0	.....	32	3.67	ssw.	18.4	2,939	1,730		
						3,250	695.2	6.8	.....	33	3.26	s.	18.3	3,184	2,010		
						3,500	674.0	4.6	.....	33	2.80	s.	18.2	3,429	2,310		
2:18	969.9	34.9	26	ssw.	9.8	3,581	668.5	3.9	0.90	33	2.67	s.	18.2	3,508	2,400		4/10 Ci_4, nw.; 4/10 Cl.St., nw.
						3,500	674.0	4.6	.....	33	2.80	s.	18.3	3,429	2,320		
						3,250	695.2	6.9	.....	33	3.28	s.	18.5	3,184	2,050		
						3,000	716.5	9.2	.....	34	3.96	s.	18.8	2,939	1,790		
						2,750	738.6	11.5	.....	34	4.61	s.	19.0	2,694	1,520		
2:56	969.9	35.6	26	sw.	9.4	2,519	760.2	13.6	0.74	34	5.30	s.	19.2	2,468	1,280		
						2,500	761.5	13.7	.....	34	5.33	s.	19.1	2,450	1,260		
						2,250	784.6	15.6	.....	36	6.38	s.	18.2	2,205	1,010		
						2,000	808.1	17.4	.....	38	7.55	s.	17.2	1,960	760		
3:10	969.7	34.8	27	ssw.	8.0	1,803	826.6	18.9	1.01	40	8.74	s.	16.5	1,767	565		5/10 Ci., nw.
						1,750	832.2	19.3	.....	40	8.96	s.	16.2	1,715	510		
						1,500	856.0	21.3	.....	38	9.63	s.	14.6	1,470	250		
3:22	969.5	34.6	27	ssw.	8.0	1,306	875.3	23.9	1.16	36	10.68	s.	13.4	1,280	50		
						1,250	881.0	24.5	.....	36	11.07	s.	13.3	1,225	0		
						1,000	906.2	27.4	.....	35	12.78	s.	12.8	980	0		
3:32	969.4	35.9	26	s.	8.0	882	918.4	28.8	1.40	34	13.47	s.	12.5	865	0		
						750	932.2	30.6	.....	32	14.06	s.	11.5	735	0		
						500	958.8	34.1	.....	27	14.45	s.	9.7	490	0		
3:41	969.2	35.6	25	s.	8.9	396	969.2	35.6	.....	25	14.54	s.	8.9	388	.....		4/10 Ci., nw.

TABLE 5.—*Free-air data from kite flights at Drexel Aerological Station, July, 1916*—Continued.

July 25, 1916, series (No. 3).

Surface.						At different heights above sea.										Remarks.
Time.	Pressure.	Temperature.	Relative humidity.	Wind.		Altitude.	Pressure.	Temperature.	$\frac{\Delta t}{100\ m.}$	Humidity.		Wind.		Potential.		
				Dir.	Vel.					Rel.	Vap. pres.	Dir.	Vel.	Gravity.	Electric.	
P. M.	*mb.*	°*C.*	%		*m. p. s.*	*m.*	*mb.*	°*C.*		%	*mb.*		*m. p. s.*	10^5 *ergs.*	*volts.*	
4:16	968.7	35.4	28	s.	9.4	396	968.7	35.4	.....	28	16.10	s.	9.4	388	.....	4/10 Ci., nw.
						500	957.0	33.9	.....	31	16.41	s.	10.1	490	0	
						750	931.2	30.4	.....	37	16.07	s.	11.6	735	0	
4:25	968.6	35.5	28	s.	10.7	810	925.1	29.6	1.40	38	15.76	s.	12.0	794	0	
						1,000	905.6	27.3	.....	40	14.52	s.	12.9	980	0	
4:35	968.5	35.4	27	s.	10.7	1,181	887.0	25.2	1.19	42	13.47	s.	13.8	1,158	0	3/10 Ci., nw.
						1,250	880.2	24.5	.....	43	13.22	s.	13.9	1,225	80	
						1,500	855.0	21.9	.....	46	12.09	s.	14.1	1,470	360	
4:47	968.4	35.3	27	ssw.	10.3	1,639	841.4	20.5	1.03	48	11.58	s.	14.3	1,606	515	
						1,750	830.3	19.6	.....	47	10.72	s.	14.8	1,715	590	
						2,000	806.3	17.6	.....	44	8.86	s.	15.8	1,960	770	
						2,250	783.2	15.6	.....	40	7.09	s.	16.9	2,205	950	
5:05	968.2	35.1	26	s.	10.3	2,467	763.4	13.8	0.81	37	5.84	s.	17.8	2,417	1,100	
						2,500	760.2	13.5	.....	37	5.72	s.	17.8	2,450	1,140	
						2,750	748.1	11.4	.....	36	4.85	s.	17.7	2,694	1,410	
						3,000	706.5	9.2	.....	36	4.19	s.	17.6	2,939	1,680	
						3,250	695.2	7.0	.....	36	3.61	s.	17.5	3,184	1,950	
						3,500	674.0	4.9	.....	35	3.03	s.	17.4	3,429	2,220	
5:47	968.0	34.3	28	s.	8.5	3,547	670.2	4.5	0.87	35	2.95	s.	17.4	3,474	2,250	
						3,500	674.0	4.9	.....	35	3.03	s.	17.6	3,429	1,910	
						3,250	695.2	7.1	.....	36	3.63	s.	18.4	3,184	1,840	
						3,000	706.5	9.3	.....	38	4.45	s.	19.3	2,939	1,760	
						2,750	748.1	11.5	.....	40	5.43	s.	20.2	2,694	1,680	
6:12	968.0	33.7	31	s.	7.2	2,504	760.2	13.7	0.83	41	6.43	s.	21.0	2,454	1,500	
						2,250	783.2	15.8	.....	42	7.54	s.	19.5	2,205	1,120	
						2,000	806.3	17.9	.....	44	9.02	s.	17.9	1,960	750	
6:29	968.0	33.4	32	s.	6.3	1,755	829.8	19.9	0.92	45	10.46	s.	16.4	1,720	380	
						1,500	855.0	22.2	.....	45	12.05	s.	17.0	1,470	210	
						1,250	880.2	24.5	.....	44	13.53	sse.	17.7	1,225	50	
6:41	968.1	32.5	36	ssw.	6.3	1,243	880.2	24.6	1.01	44	13.61	sse.	17.7	1,219	40	
						1,000	905.6	27.1	.....	43	15.42	sse.	15.5	980	0	
6:50	968.1	32.4	36	ssw.	4.5	819	923.4	28.9	0.78	42	16.73	sse.	13.8	803	0	
						750	931.2	29.4	.....	41	16.81	s.	12.1	735	0	
						500	957.0	31.4	.....	39	17.93	s.	6.1	490	0	
6:56	968.2	32.2	38	ssw.	3.6	396	968.2	32.2	.....	38	18.28	ssw	3.6	388	.....	3/10 Ci., nw.

July 25, 1916, series (No. 4).

P. M.																
7:27	968.5	31.4	40	s.	3.6	396	968.5	31.4	.....	40	18.39	s.	3.6	388	.....	3/10 Ci., nw.
						500	957.1	31.5	.....	39	18.03	sse.	9.0	490	0	
7:29	968.5	31.1	40	s.	3.6	593	947.6	31.6	−0.10	38	17.67	sse.	13.8	581	0	
						750	931.2	30.0	.....	38	16.13	sse.	14.7	735	0	
7:37	968.6	30.6	41	s.	3.6	795	926.5	29.5	1.04	38	15.67	sse.	15.0	779	0	
						1,000	905.5	27.5	.....	40	14.69	sse.	16.5	980	0	
7:47	968.7	30.0	34	sse.	3.1	1,237	881.5	25.1	1.00	43	13.70	sse.	18.2	1,213	0	
						1,250	880.1	25.0	.....	43	13.62	sse.	18.2	1,225	0	
						1,500	855.0	22.3	.....	47	12.66	sse.	18.4	1,470	0	
7:57	968.9	29.6	44	sse.	3.1	1,697	836.0	20.2	1.07	50	11.84	sse.	18.5	1,663	0	Thunderstorm west of station
						1,750	830.6	19.7	.....	51	11.70	s.	18.6	1,715	80	
						2,000	806.8	17.2	.....	54	10.59	s.	19.2	1,960	480	
						2,250	783.8	14.6	.....	56	9.31	s.	19.8	2,205	880	
8:17	968.9	28.5	48	sse.	2.7	2,493	761.4	12.1	1.02	59	8.33	ssw.	20.4	2,443	1,200	
8:18	968.9	28.5	48	sse.	2.7	2,500	761.0	12.1	.....	59	8.33	ssw.	20.4	2,450	1,210	
						2,618	750.3	12.2	−0.08	53	7.53	ssw.	20.9	2,565	1,350	
						2,750	748.8	11.2	.....	50	6.65	ssw.	20.5	2,694	1,500	
						3,000	717.0	9.2	.....	44	5.12	ssw.	19.8	2,939	1,690	
						3,250	695.3	7.3	.....	38	3.89	ssw.	19.1	3,184	1,880	
9:00	968.9	27.3	53	sse.	3.1	3,446	678.9	5.8	0.76	34	3.13	ssw.	18.6	3,376	.....	
						3,250	695.3	7.3	.....	35	3.58	ssw.	19.1	3,184	1,880	
						3,000	717.0	9.2	.....	37	4.31	ssw.	19.8	2,939	1,560	
						2,750	748.8	11.0	.....	39	5.12	ssw.	20.4	2,694	1,230	
9:30	969.1	27.4	54	sse.	3.6	2,599	751.8	12.1	−0.78	40	5.65	ssw.	20.8	2,547	1,060	
9:32	969.1	27.4	54	sse.	3.6	2,496	761.4	11.3	1.12	53	7.10	ssw.	21.4	2,446	950	
						2,250	783.8	14.1	.....	54	8.69	ssw.	20.3	2,205	660	
						2,000	806.8	16.8	.....	56	10.71	s.	19.2	1,960	360	
						1,750	830.6	19.6	.....	57	13.00	s.	18.1	1,715	60	
9:58	969.2	26.7	58	sse.	4.0	1,718	834.4	20.0	1.07	57	13.33	s.	18.0	1,684	20	1/10 Ci., nw.
						1,500	855.0	22.3	.....	53	14.27	s.	17.5	1,470	0	
						1,250	880.1	25.0	.....	48	15.21	s.	17.0	1,225	0	
10:12	969.3	26.8	59	sse.	4.0	1,241	881.5	25.1	1.00	48	15.30	s.	17.0	1,217	0	
						1,000	905.5	27.5	.....	44	16.16	sse.	17.5	980	0	
10:25	969.4	26.9	60	sse.	3.6	800	926.5	29.5	0.56	40	16.50	sse.	18.0	784	0	
						750	931.2	29.8	.....	41	17.20	sse.	17.4	735	0	
10:33	969.4	26.9	60	sse.	3.6	533	954.6	31.0	−2.99	44	19.77	sse.	14.8	523	0	
						500	957.1	30.0	.....	48	20.37	sse.	12.2	490	0	
10:35	969.4	26.9	60	sse.	4.0	396	969.4	26.9	.....	60	21.27	sse.	4.0	388	.....	2/10 Ci., nw.

TABLE 5.—*Free-air data from kite flights at Drexel Aerological Station, July, 1916*—Continued.

July 25-26, 1916, series (No. 5).

Surface.						At different heights above sea.											
Time.	Pressure.	Temperature.	Relative humidity.	Wind.		Altitude.	Pressure.	Temperature.	$\frac{\Delta t}{100\ m.}$	Humidity.		Wind.		Potential.		Remarks.
				Dir.	Vel.					Rel.	Vap. pres.	Dir.	Vel.	Gravity.	Electric.	
P. M.	*mb.*	°*C.*	%		*m. p. s.*	*m.*	*mb.*	°*C.*		%	*mb.*		*m. p. s.*	10^5 *ergs.*	*volts.*	
11:13	969.6	26.5	62	sse.	3.6	396	969.6	26.5	.....	62	21.47	sse.	3.6	388	.....	2/10 Ci., nw.
						500	958.0	27.7	.....	56	20.80	sse.	6.1	490	0	
11:16	969.6	26.5	62	sse.	3.6	744	932.4	30.5	−1.15	43	18.78	sse.	12.1	730	0	
						750	932.0	28.9	.....	43	17.03	sse.	12.8	735	0	
						1,000	906.0	27.2	.....	43	15.51	sse.	13.5	980	0	
						1,250	880.9	25.6	.....	44	14.45	s.	14.2	1,225	0	
11:35	969.6	26.5	60	sse.	4.0	1,274	878.4	25.4	0.96	44	14.28	s.	14.3	1,249	0	
						1,500	856.0	22.6	.....	48	13.17	s.	14.2	1,470	370	
11:48	969.6	27.2	57	s.	4.9	1,635	842.8	21.0	1.22	51	12.68	s.	14.1	1,602	590	
						1,750	831.0	19.7	.....	54	12.39	s.	14.0	1,715	710	
						2,000	804.2	17.0	.....	62	12.02	s.	13.7	1,960	980	
						2,250	782.8	14.2	.....	69	11.17	s.	13.4	2,205	1,250	
						2,500	760.1	11.5	.....	77	10.45	s.	13.1	2,450	1,530	
A. M.																
12:20	969.6	27.3	52	s.	4.5	2,608	751.6	10.3	1.10	80	10.02	s.	13.0	2,555	1,680	
12:21	969.6	27.4	52	s.	4.5	2,697	743.6	10.9	−0.67	60	7.82	s.	13.0	2,643	1,790	
						2,750	738.5	10.5	.....	59	7.49	s.	12.9	2,694	1,860	
						3,000	717.3	8.8	.....	52	5.80	s.	12.4	2,939	2,200	
						3,250	696.3	7.2	.....	45	4.57	s.	11.8	3,184	2,530	
12:50	969.6	27.5	48	s.	4.9	3,456	678.4	5.8	0.71	39	3.60	s.	11.3	3,385	2,800	
						3,250	696.3	7.4	.....	37	3.81	s.	11.5	3,184	2,610	
						3,000	717.3	9.2	.....	34	3.96	s.	11.7	2,939	2,380	
1:27	969.6	27.0	49	s.	4.9	2,780	735.7	10.9	−0.47	31	4.04	s.	11.9	2,724	2,150	Few Ci., nw.
						2,750	738.5	10.8	.....	36	4.66	s.	13.0	2,694	2,120	
1:37	969.6	26.9	50	s.	5.4	2,695	743.6	10.5	0.94	44	5.59	s.	14.9	2,641	2,050	
						2,500	760.1	12.3	.....	46	6.58	s.	14.9	2,450	1,910	
						2,250	782.8	14.7	.....	49	8.20	s.	14.9	2,205	1,560	
						2,000	806.2	17.0	.....	52	10.08	s.	15.0	1,960	1,220	
						1,750	831.0	19.4	.....	55	12.39	s.	15.0	1,715	870	
2:02	969.6	26.6	51	s.	5.8	1,683	837.8	20.0	1.08	56	13.09	s.	15.0	1,650	790	
						1,500	856.0	22.0	.....	52	13.75	s.	14.6	1,470	610	
						1,250	880.9	24.6	.....	46	14.23	s.	14.0	1,225	390	
2:15	969.7	26.4	51	ssw.	5.8	1,239	881.8	24.8	0.90	46	14.40	s.	14.0	1,215	380	
						1,000	906.0	27.0	.....	43	15.33	s.	12.9	980	190	
2:30	969.8	26.4	50	s.	4.9	795	927.1	28.8	0.74	40	15.84	s.	12.0	779	30	
						750	932.0	29.1	.....	39	15.72	s.	12.0	735	0	
2:35	969.8	26.3	51	s.	4.9	646	942.9	29.9	−1.48	38	16.04	s.	12.1	633	0	
						500	958.0	27.7	.....	46	17.09	s.	8.2	490	0	
2:39	969.8	26.2	51	s.	5.4	396	969.8	26.2	.....	51	17.35	s.	5.4	388	.....	Cloudless.

July 26, 1916, series (No. 6).

A. M.																
3:22	970.0	26.1	49	ssw.	5.4	396	970.0	26.1	.....	49	16.57	ssw.	5.4	388	.....	Cloudless.
						500	959.0	26.9	.....	47	16.66	ssw.	7.5	490	0	
						750	932.3	28.8	.....	41	16.24	s.	12.6	735	0	
3:27	970.1	26.0	49	ssw.	5.8	792	927.6	29.1	−0.76	40	16.12	s.	13.5	777	0	
						1,000	906.1	26.8	.....	41	14.45	s.	14.2	980	0	
3:42	970.2	25.6	51	ssw.	4.9	1,250	880.9	24.1	1.09	43	12.91	ssw.	15.0	1,225	0	
						1,500	855.7	21.3	.....	48	12.16	ssw.	14.7	1,470	360	
4:00	970.3	25.2	53	ssw.	5.4	1,709	835.4	19.0	1.11	53	11.64	ssw.	14.4	1,675	660	Few Ci., nw.
						1,750	831.0	18.6	.....	53	11.36	ssw.	14.4	1,715	730	
						2,000	807.0	15.9	.....	53	9.58	ssw.	14.4	1,960	1,140	
						2,250	784.0	13.2	.....	52	7.89	ssw.	14.5	2,205	1,540	
4:25	970.3	24.7	55	ssw.	4.9	2,415	768.7	11.8	1.02	52	7.20	ssw.	14.5	2,366	1,800	
						2,500	761.0	11.3	.....	48	6.43	ssw.	14.7	2,450	1,860	
						2,750	738.7	10.0	.....	38	4.67	ssw.	15.2	2,694	2,050	
4:45	970.3	24.4	57	ssw.	4.9	2,944	721.4	8.9	0.55	30	3.42	ssw.	15.6	2,884	2,200	
						3,000	716.8	8.8	.....	29	3.29	ssw.	14.5	2,939	2,240	
						3,250	695.1	8.5	.....	24	2.66	s.	9.6	3,184	.....	
5:06	970.3	24.0	57	s.	3.6	3,284	692.1	8.4	0.16	24	2.64	s.	8.9	3,217	.....	2/10 Ci., nw.
						3,250	695.1	8.5	.....	24	2.66	s.	9.1	3,184	.....	
						3,000	716.8	8.9	.....	25	2.85	s.	10.7	2,939	2,040	
5:23	970.3	23.9	59	s.	3.6	2,941	721.4	9.0	0.50	25	2.87	s.	11.0	2,881	1,900	
						2,750	738.7	9.9	.....	37	4.51	s.	10.7	2,694	1,700	
						2,500	761.0	11.2	.....	52	6.92	ssw.	10.3	2,450	1,430	
5:36	970.3	24.0	58	s.	4.0	2,377	771.9	11.8	1.06	60	8.30	ssw.	10.1	2,329	1,300	
						2,250	784.0	13.1	.....	60	9.05	ssw.	10.6	2,205	1,170	
						2,000	807.0	15.8	.....	61	10.95	s.	11.6	1,960	910	
						1,750	831.0	18.4	.....	61	12.91	s.	12.5	1,715	650	
5:50	970.3	24.3	57	s.	5.4	1,742	832.1	18.5	1.04	61	12.99	s.	12.5	1,707	640	4/10 Ci., nw.
						1,500	855.7	21.0	.....	57	14.18	s.	13.0	1,470	290	
6:00	970.3	24.7	55	s.	5.4	1,300	875.8	23.1	0.98	53	14.98	s.	13.5	1,274	0	
						1,250	880.9	23.6	.....	52	15.15	s.	13.2	1,225	0	
						1,000	906.1	26.1	.....	47	15.90	ssw.	11.5	980	0	
6:07	970.3	24.9	55	ssw.	5.4	843	922.4	27.6	0.79	44	16.25	ssw.	10.5	827	0	
						750	932.3	28.3	.....	43	16.55	ssw.	10.9	735	0	
6:13	970.3	25.0	54	ssw.	5.4	692	938.2	28.8	−1.28	42	16.64	ssw.	11.2	69	0	
						500	959.0	26.3	.....	50	17.11	ssw.	7.4	490	0	
6:15	970.3	25.0	55	ssw.	5.4	396	970.3	25.0	.....	55	17.42	ssw.	5.4	388	.....	3/10 Ci., nw.

TABLE 5.—*Free-air data from kite flights at Drexel Aerological Station, July, 1916*—Continued.

July 26, 1916, series (No. 7).

Surface.						At different heights above sea.										
Time.	Pressure.	Temperature.	Relative humidity.	Wind.		Altitude.	Pressure.	Temperature.	$\frac{\Delta t}{100\ m.}$	Humidity.		Wind.		Potential.		Remarks.
				Dir.	Vel.					Rel.	Vap. pres.	Dir.	Vel.	Gravity.	Electric.	
A. M.	*mb.*	°*C.*	%		*m. p. s.*	*m.*	*mb.*	°*C.*		%	*mb.*		*m. p. s.*	10^5 *ergs.*	*volts.*	
7:03	970.6	26.0	53	SSW.	4.5	396	970.6	26.0	.....	53	17.82	SSW.	4.5	388	.....	3/10 Ci., nw.
						500	959.0	26.5	.....	50	17.32	SSW.	9.0	490	0	
7:07	970.6	26.0	54	SSW.	4.5	674	940.5	27.4	−0.50	44	16.06	SSW.	16.4	661	0	
						750	933.0	26.8	.....	45	15.86	SSW.	16.5	735	0	
						1,000	907.0	24.9	.....	46	14.49	SSW.	16.8	980	0	
7:22	970.6	26.6	52	SSW.	5.4	1,226	883.5	23.2	0.76	48	13.65	SSW.	17.0	1,202	0	
						1,250	881.0	23.0	.....	48	13.49	SSW.	17.0	1,225	40	
						1,500	856.0	20.5	.....	50	12.06	SSW.	16.5	1,470	320	
						1,750	831.2	18.0	.....	52	10.73	SSW.	16.0	1,715	630	
						2,000	807.2	15.6	.....	54	9.57	S.	15.4	1,960	920	
						2,250	784.0	13.1	.....	55	8.29	S.	14.9	2,205	1,220	
7:48	970.6	27.6	49	SSW.	5.8	2,344	775.0	12.2	0.98	56	7.96	S.	14.7	2,297	1,300	7/10 Ci., nw.
						2,500	761.0	11.3	.....	53	7.10	S.	14.4	2,450	1,510	
						2,750	738.4	9.8	.....	48	5.82	S.	13.9	2,694	1,720	
						3,000	716.1	8.4	.....	42	4.63	SSW.	13.4	2,939	1,920	
						3,250	695.0	6.9	.....	37	3.68	SSW.	12.8	3,184	2,120	
						3,500	674.3	5.4	.....	32	2.87	SSW.	12.3	3,429	2,330	
9:36	970.8	30.4	46	SSW.	5.8	3,639	663.7	4.6	0.59	29	2.46	SSW.	12.0	3,565	2,600	6/10 Ci., nw.
						3,750	654.5	4.3	.....	25	2.08	SSW.	11.1	3,673	2,890	
9:58	970.9	31.3	45	SSW.	6.3	3,989	635.5	3.7	0.18	16	1.27	SSW.	9.2	3,907	.....	
						3,750	654.5	3.9	.....	20	1.62	SSW.	9.9	3,673	2,350	
						3,500	674.3	4.2	.....	24	1.98	S.	10.6	3,429	2,170	
10:17	970.8	31.7	43	SSW.	5.8	3,468	677.3	4.2	0.82	24	1.98	S.	10.7	3,397	2,150	
						3,250	695.0	6.0	.....	30	2.80	S.	11.4	3,184	1,990	
						3,000	716.1	8.0	.....	37	3.97	S.	12.1	2,939	1,760	
						2,750	738.4	10.1	.....	45	5.56	S.	12.9	2,694	1,540	
						2,500	761.0	12.1	.....	52	7.34	S.	13.6	2,450	1,310	
10:38	970.7	32.8	40	SSW.	7.2	2,441	767.1	12.6	0.85	54	7.88	S.	13.8	2,392	1,240	
						2,250	784.0	14.2	.....	54	8.74	S.	13.6	2,205	1,030	
						2,000	807.2	16.3	.....	54	10.01	S.	13.4	1,960	790	
						1,750	831.2	18.5	.....	53	11.29	S.	13.2	1,715	540	
						1,500	856.0	20.6	.....	53	12.86	S.	13.0	1,470	300	
11:02	970.6	33.3	38	SSW.	8.9	1,263	880.1	22.6	1.00	53	14.54	S.	12.8	1,238	120	
						1,250	881.0	22.7	.....	53	14.62	S.	12.8	1,225	80	
						1,000	907.0	25.2	.....	50	16.03	S.	12.4	980	0	
11:15	970.5	33.4	38	SSW.	8.0	794	928.2	27.3	1.56	47	17.06	S.	12.0	779	0	
						750	933.0	28.0	.....	46	17.39	S.	11.7	735	0	
						500	959.0	31.9	.....	40	18.92	SSW.	10.1	490	0	
11:23	970.5	33.5	37	SSW.	9.4	396	970.5	33.5	.....	37	19.15	SSW.	9.4	388	.....	6/10 Ci., nw.

July 26, 1916, series (No. 8).

P. M.																
12:10	970.2	34.2	35	SSW.	9.8	396	970.2	34.2	.....	35	18.83	SSW.	9.8	388	.....	4/10 Ci., nw.; 1/10 Cu., sw.
						500	959.1	32.3	.....	37	17.90	SSW.	10.6	490	0	
12:17	970.2	35.0	33	SSW.	9.8	754	932.3	27.5	1.87	41	15.06	S.	12.5	739	0	
						1,000	906.1	25.1	.....	45	14.34	S.	12.6	980	0	
						1,259	880.8	22.7	.....	50	13.80	S.	12.7	1,225	0	
12:35	970.1	34.9	34	SSW.	8.5	1,394	866.7	21.3	0.97	52	13.17	S.	12.7	1,367	0	
						1,500	856.0	20.2	.....	53	12.55	S.	13.2	1,470	0	
						1,750	831.2	17.7	.....	57	11.54	S.	14.4	1,715	70	
						2,000	807.0	15.2	.....	61	10.53	S.	15.5	1,960	510	
1:20	969.8	35.4	31	SSW.	8.5	2,245	784.2	12.8	1.00	64	9.46	S.	16.6	2,200	950	
						2,500	760.2	10.9	.....	57	7.43	S.	16.8	2,450	1,280	
						2,750	737.7	9.0	.....	50	5.74	S.	16.9	2,694	1,600	
1:40	969.7	35.8	31	SSW.	8.5	2,979	717.7	7.3	0.75	43	4.40	S.	17.1	2,919	1,900	
						3,000	716.0	7.2	.....	43	4.37	S.	16.9	2,939	1,920	
						3,250	695.0	6.1	.....	37	3.49	S.	14.9	3,184	2,300	
						3,500	674.3	5.0	.....	32	2.79	S.	13.0	3,429	2,670	
						3,750	654.0	3.9	.....	26	2.10	S.	11.0	3,673	.....	
2:45	969.3	35.1	31	SSW.	12.1	3,862	644.5	3.4	0.54	23	1.79	S.	10.1	3,783	.....	
						3,750	654.0	4.1	.....	24	1.97	S.	10.2	3,673	.....	
						3,500	674.3	5.7	.....	26	2.38	S.	10.4	3,429	2,380	
3:04	969.2	35.8	29	SSW.	11.2	3,252	694.6	7.3	−0.78	28	2.86	S.	10.6	3,186	1,950	
3:12	969.2	35.7	29	SSW.	8.9	3,162	702.2	6.6	0.71	37	3.61	S.	12.7	3,098	1,800	
						3,000	716.0	7.7	.....	43	4.52	S.	12.8	2,939	1,630	
						2,750	737.7	9.5	.....	53	6.29	S.	13.0	2,694	1,370	
						2,500	760.2	11.2	.....	62	8.25	SSE.	13.2	2,450	1,110	
						2,250	783.5	13.0	.....	72	10.79	SSE.	13.4	2,205	850	
3:35	969.2	35.9	31	SSW.	8.0	2,214	787.4	13.3	1.15	73	11.15	SSE.	13.4	2,170	810	
						2,000	807.0	15.8	.....	68	12.21	SSE.	12.5	1,960	530	
						1,750	831.2	18.6	.....	62	13.29	S.	11.5	1,715	200	
3:56	969.2	35.8	32	SSW.	7.6	1,596	846.5	20.4	1.18	59	14.14	S.	10.9	1,564	0	
						1,500	856.0	21.5	.....	57	14.62	S.	11.0	1,470	0	
						1,250	880.8	24.5	.....	52	15.99	S.	11.4	1,225	0	
4:06	969.2	35.3	33	SSW.	9.8	1,222	883.7	24.8	1.17	51	15.97	S.	11.4	1,198	0	
						1,000	906.1	27.4	.....	44	16.06	S.	11.7	980	0	
4:20	969.1	35.1	34	SSW.	9.8	813	925.3	29.6	1.39	39	16.18	S.	11.9	797	0	
						750	932.1	30.5	.....	38	16.60	S.	11.4	735	0	
						500	959.1	34.0	.....	35	18.62	SSW.	9.3	490	0	
4:31	969.0	35.4	34	SSW.	8.5	396	969.0	35.4	.....	34	19.55	SSW.	8.5	388	.....	4/10 Ci., nw.; 1/10 Cu., s.

TABLE 5.—*Free-air data from kite flights at Drexel Aerological Station, July, 1916*—Continued.

July 27, 1916.

Surface.						At different heights above sea.										Remarks.
Time.	Pressure.	Temperature.	Relative humidity.	Wind.		Altitude.	Pressure.	Temperature.	Δt / 100 m.	Humidity.		Wind.		Potential.		
				Dir.	Vel.					Rel.	Vap. pres.	Dir.	Vel.	Gravity.	Electric.	
A. M.	*mb.*	°*C.*	%		*m. p. s.*	*m.*	*mb.*	°*C.*		%	*mb.*		*m. p. s.*	*10⁵ cgs.*	*volts.*	
7:18	973.0	26.2	61	ssw.	4.5	396	973.0	26.2	.....	61	20.75	ssw.	4.5	388	.....	Cloudless.
						500	962.0	26.3	.....	58	19.85	ssw.	5.8	490	0	
						750	935.2	26.4	.....	50	17.22	ssw.	9.0	735	0	
7:50	973.0	27.0	61	ssw.	4.9	828	926.6	26.5	−0.07	48	16.62	ssw.	10.0	812	0	
						1,000	909.0	24.9	.....	51	16.06	ssw.	11.1	980	0	
						1,250	883.2	22.6	.....	56	15.36	s.	12.8	1,225	0	
						1,500	857.8	20.2	.....	60	14.21	s.	14.4	1,470	380	
8:15	973.0	27.2	59	sw.	4.9	1,649	843.3	18.8	0.94	63	13.67	s.	15.4	1,616	615	
						1,750	833.2	18.1	.....	61	12.67	s.	14.9	1,715	720	
						2,000	809.0	16.2	.....	56	10.32	s.	13.8	1,960	980	
						2,250	786.0	14.4	.....	51	8.36	s.	12.7	2,205	1,230	
8:40	973.0	28.0	58	sw.	5.8	2,422	770.3	13.1	0.74	48	7.24	s.	11.9	2,373	1,400	
						2,500	763.2	12.7	.....	46	6.76	s.	11.6	2,450	1,470	
						2,750	740.9	11.4	.....	40	5.39	s.	10.6	2,694	1,750	
						3,000	719.2	10.2	.....	35	4.36	ssw.	9.5	2,939	2,020	
						3,250	698.0	8.9	.....	29	3.31	ssw.	8.5	3,184	2,300	
11:03	972.6	32.6	48	ssw.	5.8	3,401	686.3	8.1	0.51	26	2.81	ssw.	7.9	3,332	2,500	
						3,500	677.3	7.5	.....	26	2.70	ssw.	8.1	3,429	2,490	
						3,750	660.8	6.1	.....	25	2.36	s.	8.6	3,673	2,470	
						4,000	637.5	4.8	.....	24	2.06	s.	9.2	3,918	2,450	
						4,250	618.3	3.4	.....	23	1.79	sse.	9.7	4,162	2,430	
11:23	972.5	32.4	46	s.	7.6	4,457	603.0	2.2	0.56	22	1.58	sse.	10.2	4,365	2,410	
						4,500	599.8	2.2	.....	21	1.50	se.	10.6	4,407	2,410	
11:37	972.4	32.6	45	ssw.	8.0	4,633	589.8	2.3	−0.08	16	1.15	se.	12.0	4,537	.....	Cloudless.
						4,500	599.8	2.2	.....	16	1.15	se.	9.9	4,407	2,360	
11:44	972.4	32.8	44	ssw.	8.0	4,427	604.5	2.1	0.54	16	1.14	se.	8.8	4,335	2,320	
						4,250	618.3	3.0	.....	17	1.29	sse.	9.2	4,162	2,210	
						4,000	637.5	4.4	.....	18	1.51	s.	9.8	3,918	2,070	
						3,750	660.8	5.7	.....	19	1.74	s.	10.5	3,673	1,930	
P. M.																
12:01	972.3	33.0	43	ssw.	8.9	3,495	677.2	7.1	0.61	20	2.02	s.	11.1	3,424	1,790	Few Cu., s.
						3,250	698.0	8.7	.....	28	3.15	s.	11.0	3,184	1,600	
						3,000	719.2	10.2	.....	36	4.48	s.	11.0	2,939	1,460	
						2,750	740.9	11.7	.....	44	6.05	s.	10.9	2,694	1,230	
12:20	972.2	33.7	41	s.	7.6	2,514	762.3	13.1	0.82	52	7.84	s.	10.8	2,464	970	
						2,500	763.2	13.2	.....	53	8.04	s.	10.8	2,450	960	
						2,250	786.0	15.2	.....	54	9.33	s.	10.8	2,205	770	
						2,000	809.0	17.3	.....	56	11.06	s.	10.8	1,960	580	
						1,750	833.2	19.3	.....	58	12.99	sse.	10.7	1,715	400	
						1,500	857.8	21.4	.....	60	15.29	sse.	10.7	1,470	210	
						1,250	883.2	23.4	.....	61	17.56	sse.	10.7	1,225	20	
12:43	972.1	34.0	37	ssw.	10.7	1,214	887.0	23.7	1.24	61	17.88	sse.	10.7	1,190	0	
						1,000	909.0	26.4	.....	56	19.28	s.	11.4	980	0	
1:00	972.0	34.2	37	ssw.	8.9	859	923.1	28.1	1.27	52	19.78	ssw.	11.8	842	0	
						750	934.8	29.5	.....	49	20.21	ssw.	11.5	735	0	
						500	960.5	32.7	.....	41	20.29	ssw.	10.9	490	0	
1:06	972.0	34.0	38	ssw.	10.7	396	972.0	34.0	.....	38	20.22	ssw.	10.7	388	.....	Few Cu., s.

July 28, 1916.

A. M.																
7:20	973.0	27.6	60	s.	5.8	396	973.0	27.6	.....	60	22.16	s.	5.8	388	.....	Cloudless.
						500	961.8	27.4	.....	58	21.18	s.	8.6	490	0	
						750	935.0	27.0	.....	54	19.26	ssw.	15.2	735	0	
7:29	973.0	28.4	57	s.	6.3	841	925.5	26.8	0.18	52	18.32	ssw.	17.6	825	0	
						1,000	909.0	25.2	.....	54	17.31	ssw.	17.5	980	0	
						1,250	883.3	22.8	.....	58	16.10	s.	17.4	1,225	0	
						1,500	858.0	20.3	.....	62	14.77	s.	17.3	1,470	210	
7:45	973.0	28.6	56	ssw.	5.4	1,644	844.0	18.9	0.98	64	13.98	s.	17.2	1,611	540	
						1,750	833.4	18.1	.....	64	13.29	s.	15.8	1,715	640	
						2,000	809.2	16.2	.....	65	11.97	ssw.	12.6	1,960	800	
						2,250	786.0	14.2	.....	66	10.69	ssw.	9.4	2,205	950	
8:30	973.0	29.9	55	ssw.	5.8	2,329	779.1	13.6	0.77	66	10.28	ssw.	8.4	2,282	1,000	
						2,500	763.3	12.5	.....	67	9.71	ssw.	8.5	2,450	1,200	
						2,750	741.3	10.9	.....	68	8.87	s.	8.8	2,694	1,450	
						3,000	720.0	9.3	.....	69	8.09	s.	9.0	2,939	1,700	
9:07	973.0	31.7	53	ssw.	6.3	3,025	717.9	9.1	0.65	69	7.98	s.	9.0	2,964	1,740	
						3,250	698.7	7.9	.....	61	6.50	s.	9.7	3,184	2,100	
						3,500	677.6	6.6	.....	51	4.97	s.	10.4	3,429	2,300	
10:07	972.6	32.8	47	ssw.	8.5	3,697	661.7	5.5	0.54	44	3.97	s.	11.0	3,621	2,450	
						3,750	657.1	5.2	.....	44	3.89	s.	11.0	3,673	2,490	
						4,000	637.0	3.8	.....	46	3.69	s.	10.9	3,918	2,140	
						4,250	617.8	2.3	.....	48	3.46	s.	10.7	4,162	.....	
10:23	972.6	32.9	46	s.	7.6	4,318	613.0	1.9	0.58	48	3.36	s.	10.7	4,229	.....	Cu. forming.
						4,250	617.8	2.3	.....	48	3.46	s.	10.8	4,162	.....	
						4,000	637.0	3.8	.....	47	3.77	s.	11.3	3,918	1,980	
						3,750	657.1	5.2	.....	45	3.98	s.	11.8	3,673	1,900	
10:42	972.6	33.2	45	ssw.	10.7	3,639	666.2	5.8	0.66	44	4.06	s.	12.0	3,565	1,860	
						3,500	677.6	6.7	.....	47	4.61	s.	12.2	3,429	1,810	
						3,250	698.7	8.4	.....	52	5.73	s.	12.6	3,184	1,640	
						3,000	720.0	10.0	.....	57	7.00	s.	13.1	2,939	1,460	
11:10	972.6	33.9	41	ssw.	11.6	2,915	727.2	10.6	0.78	59	7.54	s.	13.2	2,856	1,400	1/10 Cu.,sw.
						2,750	741.3	11.9	.....	57	7.94	s.	12.6	2,694	1,270	
						2,500	763.3	13.8	.....	54	8.52	sse.	11.6	2,450	1,080	
11:22	972.5	34.4	41	ssw.	8.9	2,402	772.8	14.6	0.80	53	8.81	sse.	11.2	2,354	1,000	1/10 Cl.,sw.; 1/10 Cu.,sw.
						2,250	786.0	15.8	.....	54	9.69	sse.	11.3	2,205	670	
						2,000	809.2	17.8	.....	57	11.62	sse.	11.5	1,960	510	
						1,750	833.4	19.8	.....	59	13.63	s.	11.6	1,715	360	
						1,500	858.0	21.8	.....	62	16.49	s.	11.8	1,470	200	
11:46	972.4	34.6	37	ssw.	11.2	1,275	880.9	23.6	1.06	61	18.64	s.	12.0	1,250	0	
						1,250	883.3	23.9	.....	63	18.89	s.	12.0	1,225	0	
						1,000	909.0	26.5	.....	56	19.39	s.	11.9	980	0	
P. M.																
12:04	972.3	34.8	37	ssw.	8.9	840	925.5	28.2	1.53	51	19.51	s.	11.8	824	0	
						750	935.0	29.6	.....	48	19.91	s.	11.4	735	0	
						500	961.8	33.4	.....	41	21.10	ssw.	10.3	490	0	
12:10	972.3	35.0	38	ssw.	9.8	396	972.3	35.0	.....	38	21.38	ssw.	9.8	388	.....	4/10 Cl.,sw.; 1/10 Cu.,sw.

TABLE 5.—*Free-air data from kite flights at Drexel Aerological Station, July, 1916*—Continued.

July 29, 1916.

Surface.						At different heights above sea.										Remarks.
Time.	Pressure.	Temperature.	Relative humidity.	Wind.		Altitude.	Pressure.	Temperature.	$\frac{\Delta t}{100\ m.}$	Humidity.		Wind.		Potential.		
				Dir.	Vel.					Rel.	Vap. pres.	Dir.	Vel.	Gravity.	Electric.	
A. M.	*mb.*	°*C.*	%		*m. p. s.*	*m.*	*mb.*	°*C.*		%	*mb.*		*m. p. s.*	10^5 *ergs.*	*volts.*	
7:34	973.0	26.2	62	sse.	3.1	396	973.0	26.2	.....	62	21.09	sse.	3.1	388	.....	Cloudless.
7:38	973.0	26.3	62	sse.	3.1	479	964.0	25.6	0.72	60	19.70	s.	5.1	470	0	
						500	961.2	25.7	.....	60	19.82	s.	5.6	490	0	
						750	934.8	26.7	.....	55	19.27	s.	11.6	735	40	
7:49	973.0	26.8	59	s.	2.7	874	921.7	27.2	−0.41	53	19.12	s.	14.6	857	140	
						1,000	908.7	26.0	.....	54	18.15	s.	13.6	980	170	
						1,250	883.0	23.5	.....	55	15.93	sse.	11.7	1,225	430	
8:01	973.0	27.3	59	s.	3.1	1,264	882.0	23.4	0.97	55	15.83	sse.	11.6	1,239	450	
						1,500	857.7	21.6	.....	54	13.93	sse.	12.6	1,470	880	
						1,750	833.3	19.8	.....	52	12.01	sse.	13.7	1,715	1,160	
						2,000	809.4	17.9	.....	51	10.46	sse.	14.8	1,960	1,440	
						2,250	786.8	16.1	.....	49	8.97	sse.	15.9	2,205	1,720	
8:30	973.0	29.1	51	s.	4.0	2,352	777.9	15.3	0.74	48	8.34	sse.	16.4	2,305	1,800	
						2,500	764.2	14.2	.....	46	7.45	sse.	15.6	2,450	1,910	
						2,750	742.4	12.2	.....	42	5.97	s.	14.3	2,694	2,100	
						3,000	720.5	10.3	.....	38	4.76	s.	13.0	2,939	2,290	
8:55	973.0	30.0	47	s.	5.4	3,029	718.0	10.1	0.77	38	4.70	s.	12.8	2,968	2,410	
						3,250	699.4	8.6	.....	42	4.69	s.	12.1	3,184	2,720	
						3,500	678.5	6.8	.....	46	4.54	sse.	11.4	3,429	2,940	
						3,750	658.5	5.1	.....	51	4.48	sse.	10.7	3,673	3,170	
10:05	973.0	31.7	48	s.	4.5	3,906	646.4	4.0	0.70	54	4.39	sse.	10.2	3,826	3,280	
						4,000	639.4	3.4	.....	54	4.21	sse.	10.5	3,918	3,460	
						4,250	620.2	1.7	.....	55	3.80	sse.	11.4	4,162	3,740	
						4,500	601.5	0.0	.....	56	3.42	sse.	12.4	4,407	4,030	
						4,750	583.2	−1.7	.....	57	3.02	sse.	13.3	4,651	.....	
11:17	972.8	33.2	44	s.	4.5	4,763	581.6	−1.8	0.70	57	3.00	sse.	13.3	4,664	.....	
						4,750	583.2	−1.7	.....	57	3.02	sse.	13.3	4,651	.....	
						4,500	601.5	0.1	.....	56	3.44	sse.	13.6	4,407	3,660	
						4,250	620.2	1.9	.....	55	3.86	sse.	13.8	4,162	3,130	
						4,000	639.4	3.7	.....	54	4.30	sse.	14.1	3,918	2,600	
11:58	972.3	34.6	36	sse.	4.9	3,955	642.0	4.0	0.87	54	4.39	sse.	14.1	3,874	2,550	
						3,750	658.5	5.8	.....	53	4.89	sse.	13.1	3,673	2,370	
						3,500	678.5	8.0	.....	51	5.47	sse.	11.8	3,429	2,190	
						3,250	699.4	10.2	.....	49	6.10	sse.	10.5	3,184	2,010	
P. M.																
12:13	972.2	34.6	38	sse.	5.8	3,142	708.7	11.1	0.57	48	6.34	sse.	10.0	3,078	1,940	
						3,000	720.5	11.9	.....	48	6.69	sse.	11.4	2,939	1,840	
						2,750	742.4	13.3	.....	47	7.18	se.	13.9	2,694	1,340	Cloudless.
12:26	972.2	34.6	38	sse.	4.5	2,496	765.2	14.8	.....	47	7.91	se.	16.5	2,446	830	Clock cylinder slipped.

July 30, 1916.

A. M.																
6:48	974.3	25.2	70	sw.	4.0	396	974.3	25.2	.....	70	22.44	sw.	4.0	388	.....	Few Ci.,ssw.
6:51	974.3	25.3	70	ssw.	3.6	500	962.7	25.8	.....	66	21.93	sw.	7.1	490	0	
						708	940.5	27.0	−0.58	58	20.68	sw.	13.2	694	0	
						750	936.0	26.6	.....	59	20.55	sw.	12.9	735	0	
						1,000	909.6	24.2	.....	62	18.72	sw.	10.8	980	0	
						1,250	884.3	21.9	.....	66	17.34	sw.	8.8	1,225	0	
7:30	974.3	25.6	71	sw.	4.5	1,480	861.1	19.8	0.93	69	15.94	sw.	7.0	1,451	0	
						1,500	859.1	19.6	.....	69	15.74	sw.	6.9	1,470	0	
						1,750	834.5	17.7	.....	70	14.18	sw.	6.0	1,715	0	
						2,000	801.3	15.7	.....	72	12.84	ssw.	5.2	1,960	0	
						2,250	786.8	13.8	.....	73	11.52	ssw.	4.3	2,205	0	
8:52	974.3	28.5	61	ssw.	4.5	2,282	783.7	13.5	0.80	73	11.29	ssw.	4.2	2,236	0	
						2,250	786.8	13.8	.....	73	11.52	ssw.	4.3	2,205	0	
						2,000	801.3	15.8	.....	71	12.74	ssw.	5.1	1,960	0	
						1,750	834.5	17.9	.....	70	14.36	ssw.	6.0	1,715	0	
						1,500	859.1	19.9	.....	68	15.80	ssw.	6.8	1,470	0	
9:22	974.3	30.5	54	sw.	4.0	1,449	864.4	20.3	0.89	68	16.20	ssw.	7.0	1,420	0	2/10 Ci.,ssw.
						1,250	884.3	22.1	.....	66	17.56	ssw.	6.9	1,225	0	
						1,000	909.6	24.3	.....	63	19.15	sw.	6.8	980	0	
						750	936.0	26.5	.....	60	20.78	sw.	6.6	735	0	
9:58	974.3	31.4	50	sw.	4.9	727	938.7	26.7	1.48	60	21.02	sw.	6.6	713	0	
						500	962.7	30.1	.....	54	23.05	sw.	5.8	490	0	
10:03	974.3	31.6	51	sw.	5.4	396	974.3	31.6	.....	51	23.72	sw.	5.4	388	.....	3/10 Ci.,ssw.

July 31, 1916.

A. M.																
6:52	976.0	24.4	80	ene.	4.5	396	976.0	24.4	.....	80	24.46	ene.	4.5	388	.....	1/10 St.Cu.,ne.
6:55	976.0	24.6	80	ene.	4.9	500	964.4	23.1	.....	82	23.18	ene.	7.0	490	0	
						640	949.1	21.4	1.23	84	21.41	e.	10.4	627	0	
						750	938.0	22.2	.....	81	21.68	e.	9.7	735	0	
6:58	976.0	25.1	78	ene.	4.9	787	933.2	22.5	−0.75	80	21.81	e.	9.5	772	0	Few A.Cu.,sw.; 4/10 St.Cu.,ne.
						1,000	911.7	21.5	.....	74	18.98	ene.	6.9	980	0	
10:20	977.1	27.6	68	ene.	6.3	1,115	900.0	21.0	0.46	71	17.66	ene.	5.5	1,093	0	5/10 Cu.,wsw.
						1,250	886.0	20.3	.....	70	16.67	ene.	4.6	1,225	0	
						1,500	861.2	18.9	.....	69	15.07	ne.	2.8	1,470	0	
10:35	977.2	27.7	67	ene.	5.4	1,587	852.3	18.4	0.46	68	14.39	ne.	2.2	1,555	.....	
						1,500	861.2	18.7	.....	70	15.10	ne.	3.8	1,470	.....	
						1,250	886.7	19.6	.....	77	17.56	nne.	8.3	1,225	0	
11:16	977.3	29.2	60	nne.	4.5	1,169	894.8	19.9	0.94	79	18.36	nne.	9.8	1,146	0	6/10 Cu.,wsw.
						1,000	912.7	21.5	.....	75	19.24	nne.	9.2	980	0	
11:27	977.2	29.5	60	nne.	4.5	786	935.0	23.5	1.46	70	20.27	nne.	8.5	771	0	
						750	939.2	24.0	.....	69	20.59	nne.	8.2	735	0	
						500	966.2	27.7	.....	62	23.03	nne.	6.2	490	0	
11:33	977.2	29.2	59	nne.	5.4	396	977.2	29.2	.....	59	23.91	nne.	5.4	388	.....	4/10 Cu.,wsw.

TABLE 6.—*Free-air data from kite flights at Drexel Aerological Station, August, 1916.*

August 1, 1916.

Surface.						At different heights above sea.										
Time.	Pressure.	Temperature.	Relative humidity.	Wind.		Altitude.	Pressure.	Temperature.	$\frac{\Delta t}{100\ m.}$	Humidity.		Wind.		Potential.		Remarks.
				Dir.	Vel.					Rel.	Vap. pres.	Dir.	Vel.	Gravity.	Electric.	
P. M.	*mb.*	°*C.*	%		*m. p. s.*	*m.*	*mb.*	°*C.*		%	*mb.*		*m. p. s.*	10^5 *ergs.*	*volts.*	
7:59	971.3	23.4	95	se.	2.2	396	971.3	23.4	.....	95	27.34	se.	2.2	388	.....	2/10 A.Cu.,sw.
						500	960.0	23.1	.....	89	25.16	se.	4.0	490	85	
						750	933.4	22.4	.....	74	20.05	sse.	8.4	735	290	
8:13	971.4	23.2	95	se.	2.7	947	912.0	21.8	0.29	62	16.19	sse.	11.8	928	200	
						1,000	907.0	21.6	.....	63	16.25	sse.	11.7	980	150	
						1,250	881.2	20.6	.....	66	16.02	sse.	11.2	1,225	35	
8:48	971.5	22.8	94	se.	2.2	1,500	856.3	19.7	.....	69	15.84	sse.	10.7	1,470	160	
						1,672	838.8	19.0	0.40	71	15.60	sse.	10.3	1,635	.....	
						1,500	856.3	19.7	.....	71	16.29	sse.	11.7	1,470	160	
						1,250	881.2	20.8	.....	71	17.44	sse.	13.8	1,225	35	
						1,000	907.0	21.8	.....	72	18.81	sse.	15.8	980	0	
9:12	971.5	22.5	95	se.	2.7	798	927.8	22.6	−0.02	72	19.75	sse.	17.5	782	0	
						750	933.4	22.6	.....	75	20.57	sse.	15.8	735	0	Lightning in sw.
						500	960.0	22.5	.....	89	24.26	se.	7.2	490	0	
9:21	971.5	22.5	95	se.	3.6	396	971.5	22.5	.....	95	25.90	se.	3.6	388	.....	2/10 A.Cu., sw.

August 2, 1916.

A. M.																
7:33	968.9	23.2	86	sse.	4.0	396	968.9	23.2	.....	86	24.46	sse.	4.0	388	.....	2/10 St.Cu.,sw.
						500	957.1	22.2	.....	82	21.95	sse.	5.5	490	0	
7:36	968.9	23.3	86	sse.	4.0	663	939.6	20.6	0.97	77	18.09	s.	7.9	650	0	
						750	930.6	21.3	.....	73	18.49	s.	8.1	735	0	
						1,000	904.3	23.2	.....	62	17.63	s.	8.5	980	40	
8:22	969.0	24.8	77	s.	3.6	1,081	895.9	23.8	−0.77	59	17.40	s.	8.7	1,060	70	
						1,250	878.4	22.7	.....	59	16.28	ssw.	8.5	1,225	135	
						1,500	853.2	21.1	.....	59	14.77	sw.	8.2	1,470	230	
						1,750	829.7	19.5	.....	59	13.38	wsw.	7.9	1,715	320	
8:42	969.1	25.4	78	sse.	5.4	1,767	828.2	19.4	0.64	59	13.29	wsw.	7.9	1,732	330	Few St.Cu.,sw.
						2,000	806.2	17.5	.....	63	12.60	wsw.	8.0	1,960	480	
10:37	968.7	29.8	65	sse.	3.1	2,140	793.8	16.4	0.80	65	12.12	wsw.	8.0	2,097	660	
						2,250	783.6	15.6	.....	67	11.87	wsw.	8.2	2,205	.....	
						2,500	761.2	13.6	.....	70	10.91	wsw.	8.7	2,450	.....	
						2,750	739.2	11.7	.....	74	10.18	sw.	9.2	2,694	.....	
						3,000	717.0	9.8	.....	78	9.45	sw.	9.6	2,939	.....	
						3,250	695.5	7.8	.....	81	8.60	sw.	10.1	3,184	.....	
10:46	968.7	30.0	65	sse.	3.1	3,357	686.5	7.0	0.76	82	8.22	sw.	10.3	3,289	.....	
						3,250	695.5	7.8	.....	81	8.60	sw.	10.2	3,184	.....	
						3,000	717.0	9.6	.....	77	9.20	sw.	10.1	2,939	.....	
						2,750	739.2	11.5	.....	74	10.04	wsw.	10.0	2,694	.....	
						2,500	761.2	13.3	.....	70	10.09	wsw.	9.9	2,450	.....	
11:03	968.6	30.1	61	sse.	3.6	2,328	776.0	14.6	0.94	68	11.30	wsw.	9.8	2,281	.....	
						2,250	783.6	15.3	.....	67	11.64	wsw.	10.0	2,205	.....	
						2,000	806.2	17.7	.....	62	12.56	sw.	10.5	1,960	0	
						1,750	829.7	20.1	.....	58	13.65	ssw.	11.0	1,715	0	
11:30	968.4	30.1	61	sse.	3.1	1,682	836.5	20.7	0.69	57	13.92	ssw.	11.1	1,649	0	
						1,500	853.2	22.0	.....	56	14.81	ssw.	10.6	1,470	0	
						1,250	878.4	24.0	.....	54	16.11	ssw.	9.9	1,225	0	
11:49	968.3	30.4	59	s.	4.0	1,134	890.7	24.5	−0.52	53	16.30	ssw.	9.6	1,112	0	
11:51	968.3	30.4	60	s.	4.5	999	904.6	23.8	0.91	72	21.23	s.	7.6	979	0	
						750	930.6	26.1	.....	70	23.67	s.	6.9	735	0	
11:56	968.2	30.3	60	s.	4.5	713	934.4	26.4	1.20	70	24.10	s.	6.8	699	0	
						500	957.1	29.0	.....	63	25.24	s.	5.3	490	0	
NOON	968.2	30.2	60	s.	4.5	396	968.2	30.2	.....	60	25.76	s.	4.5	388	.....	Few St.Cu.,sw.

August 3, 1916.

A. M.																
7:16	964.2	26.8	54	ssw.	6.3	396	964.2	26.8	.....	54	19.03	ssw.	6.3	388	.....	2/10A.Cu.,nw.;1/10St.Cu.,wsw.
						500	952.9	27.6	.....	49	18.10	ssw.	9.7	490	0	
						750	926.8	29.5	.....	36	14.85	s.	17.8	735	0	
7:26	964.2	28.0	50	s.	6.7	760	925.6	29.6	−0.77	35	14.52	s.	18.1	745	0	
						1,000	901.1	27.1	.....	38	13.63	s.	16.5	980	0	
7:42	964.2	28.2	50	s.	7.2	1,100	890.7	26.1	1.03	39	13.19	s.	15.9	1,078	0	
						1,250	875.6	24.8	.....	41	12.84	s.	15.3	1,225	0	
						1,500	851.2	22.7	.....	45	12.42	ssw.	14.5	1,470	0	
7:58	964.2	28.8	53	s.	6.3	1,582	843.0	22.0	0.85	46	12.16	ssw.	14.1	1,551	0	
						1,750	827.0	20.5	.....	48	11.58	ssw.	13.9	1,715	140	
						2,000	803.2	18.2	.....	50	10.45	sw.	13.5	1,960	340	
						2,250	780.0	16.0	.....	53	9.64	sw.	13.1	2,205	540	
8:17	964.1	30.0	50	s.	6.3	2,334	772.4	15.3	0.89	54	9.39	sw.	13.0	2,287	615	
						2,500	757.0	13.8	.....	56	8.84	sw.	11.3	2,450	660	
9:00	963.8	30.9	51	s.	7.6	2,688	740.4	12.1	0.90	59	8.33	wsw.	9.4	2,634	780	
						2,750	735.0	11.5	.....	60	8.14	wsw.	9.2	2,694	820	
						3,000	713.3	9.2	.....	64	7.45	wsw.	8.5	2,939	950	
10:05	963.8	31.7	51	ssw.	9.8	3,161	699.7	7.7	0.93	66	6.94	wsw.	8.0	3,097	1,070	3/10 A.Cu., nw.
						3,250	692.1	6.9	.....	65	6.47	wsw.	7.6	3,184	1,130	
						3,500	671.2	4.8	.....	62	5.33	wsw.	6.4	3,429	1,160	
						3,750	651.0	2.6	.....	58	4.27	wsw.	5.1	3,673	1,190	
10:24	963.8	32.1	53	ssw.	9.4	3,931	637.3	1.0	0.90	55	3.61	wsw.	4.2	3,850	.....	
						3,750	651.0	2.7	.....	56	4.16	wsw.	5.9	3,673	1,130	
						3,500	671.2	5.0	.....	58	5.06	wsw.	8.3	3,429	1,010	
						3,250	692.1	7.3	.....	60	6.14	wsw.	10.6	3,184	890	
						3,000	713.3	9.6	.....	62	7.41	wsw.	13.0	2,939	760	
11:00	963.8	32.4	53	ssw.	9.8	2,878	724.7	10.7	1.06	63	8.11	wsw.	14.2	2,820	705	
						2,750	735.0	12.1	.....	59	8.33	wsw.	13.4	2,694	630	
						2,500	757.0	14.7	.....	52	8.70	sw.	11.8	2,450	480	
11:18	963.8	32.4	54	ssw.	8.9	2,340	772.4	16.4	0.96	48	8.95	sw.	10.8	2,293	380	4/10A.Cu.,nw.;2/10St.Cu.,wsw.
						2,250	780.0	17.3	.....	47	9.28	sw.	10.8	2,205	330	
						2,000	803.2	19.7	.....	43	9.87	sw.	10.8	1,960	100	
						1,750	827.0	22.1	.....	39	10.37	sw.	10.9	1,715	80	
11:39	963.8	32.7	54	ssw.	5.8	1,601	841.3	23.5	1.16	37	10.72	sw.	10.9	1,569	0	
						1,500	851.2	24.7	.....	36	11.20	sw.	10.9	1,470	0	

TABLE 6.—*Free-air data from kite flights at Drexel Aerological Station, August, 1916*—Continued.

August 3, 1916—Continued.

Surface.						At different heights above sea.											Remarks.
Time.	Pressure.	Temperature.	Relative humidity.	Wind.		Altitude.	Pressure.	Temperature.	$\frac{\Delta t}{100\ m.}$	Humidity.		Wind.		Potential.		
				Dir.	Vel.					Rel.	Vap. pres.	Dir.	Vel.	Gravity.	Electric.	
A. M.	*mb.*	°*C.*	%		*m. p. s.*	*m.*	*mb.*	°*C.*		%	*mb.*		*m. p. s.*	*10⁵ ergs.*	*volts.*	
						1,250	875.4	27.6	.....	34	12.56	sw.	10.9	1,225	0	
11:48	963.8	33.0	51	sw.	7.2	1,221	878.6	27.9	0.31	34	12.78	sw.	10.9	1,197	0	
						1,000	903.0	28.6	.....	35	13.70	ssw.	9.7	980	0	
11:59	963.8	33.4	51	s.	5.8	806	920.4	29.2	−2.00	36	14.59	ssw.	8.7	790	0	
						750	926.0	28.1	.....	52	19.78	ssw.	8.1	735	0	
P. M.																
12:05	963.7	32.9	52	ssw.	6.3	706	930.9	27.2	1.84	64	23.09	ssw.	7.6	692	0	
						500	952.0	31.0	.....	57	25.62	s.	6.4	490	0	
12:10	963.7	32.9	53	s.	5.8	396	963.7	32.9	.....	53	26.52	s.	5.8	388	.....	2/10 A.Cu., nw.

August 4, 1916, series (No. 1).

A. M.																
7:20	962.2	27.1	64	ssw.	8.5	396	962.2	27.1	.....	64	22.96	ssw.	8.5	388	.....	1/10 St.Cu., wsw.
						500	951.0	26.3	.....	63	21.56	ssw.	16.0	490	0	
7:22	962.2	27.0	64	ssw.	8.5	599	940.4	25.6	0.74	62	20.36	ssw.	23.1	587	0	
						750	924.7	27.1	.....	53	19.01	sw.	20.3	735	0	
						1,000	899.1	29.5	.....	37	15.26	sw.	15.8	980	0	
7:38	962.4	27.6	64	ssw.	8.9	1,125	886.5	30.7	−0.97	29	12.81	wsw.	13.5	1,103	0	
						1,250	874.0	29.3	.....	29	11.82	wsw.	14.1	1,225	0	
						1,500	849.8	26.4	.....	29	9.98	wsw.	15.3	1,470	0	
7:51	962.4	27.9	63	ssw.	8.5	1,506	849.3	26.3	1.15	29	9.92	wsw.	15.3	1,476	0	
						1,750	826.0	23.7	.....	35	10.26	wsw.	14.3	1,715	50	
						2,000	802.9	21.0	.....	41	10.20	wsw.	13.2	1,960	190	
8:14	962.6	28.7	61	ssw.	8.0	2,190	785.4	19.0	1.07	45	9.89	wsw.	12.4	2,146	260	Few St.Cu., wsw.
						2,250	780.0	18.4	.....	46	9.73	wsw.	12.4	2,205	370	
						2,500	757.0	15.8	.....	52	9.33	wsw.	12.2	2,450	660	
						2,750	735.0	13.3	.....	59	9.01	sw.	12.0	2,694	810	
						3,000	713.8	10.7	.....	65	8.37	sw.	11.8	2,939	960	
8:55	962.8	29.3	59	sw.	6.3	3,089	706.5	9.8	1.02	67	8.12	sw.	11.7	3,026	1,010	
						3,250	693.0	8.6	.....	65	7.26	sw.	11.7	3,184	1,010	
						3,500	672.5	6.7	.....	61	5.98	ssw.	11.8	3,429	1,230	
10:12	963.1	31.0	54	sw.	4.5	3,722	654.8	5.1	0.74	58	5.10	ssw.	11.8	3,646	1,540	
						3,750	656.4	4.9	.....	58	5.02	ssw.	11.7	3,673	1,550	
						4,000	633.3	2.8	.....	60	4.48	ssw.	11.0	3,918	1,670	
						4,250	614.5	0.8	.....	63	4.08	ssw.	10.3	4,162	1,830	
10:36	963.1	31.8	54	sw.	4.0	4,299	610.4	0.4	0.79	63	3.96	ssw.	10.2	4,210	1,830	
						4,250	614.5	0.8	.....	62	4.01	ssw.	10.3	4,162	1,700	
						4,000	633.3	2.7	.....	56	4.16	ssw.	10.8	3,918	1,350	
						3,750	656.4	4.6	.....	50	4.24	ssw.	11.4	3,673	1,210	
11:01	963.1	32.0	52	sw.	4.9	3,554	668.4	6.1	0.80	45	4.24	ssw.	11.8	3,481	1,140	
						3,500	672.5	6.5	.....	47	4.55	ssw.	12.1	3,429	1,090	
						3,250	693.0	8.5	.....	55	6.10	sw.	13.4	3,184	980	
						3,000	714.0	10.5	.....	63	8.00	sw.	14.7	2,939	870	
11:16	963.0	32.2	50	sw.	5.4	2,967	717.4	10.8	1.13	64	8.29	sw.	14.9	2,907	860	
						2,750	736.0	13.3	.....	59	9.01	sw.	14.3	2,694	760	
						2,500	758.1	16.1	.....	52	9.52	sw.	13.7	2,450	640	
11:33	962.9	33.0	48	ssw.	6.3	2,252	780.6	18.9	1.02	46	10.05	sw.	13.0	2,207	515	
						2,000	804.0	21.5	.....	41	10.52	sw.	13.5	1,960	290	
						1,750	827.1	24.0	.....	36	10.74	wsw.	13.9	1,715	70	
11:46	962.9	33.2	47	ssw.	7.2	1,673	834.3	24.8	1.02	34	10.65	wsw.	14.0	1,640	0	
						1,500	850.8	26.6	.....	33	11.49	wsw.	14.0	1,470	0	
						1,250	875.0	29.1	.....	30	12.09	sw.	13.9	1,225	0	
NOON	962.8	33.2	47	s.	6.7	1,082	891.6	30.8	−2.22	29	12.88	sw.	13.9	1,061	0	
P. M.																
						1,000	900.0	29.0	.....	37	14.83	ssw.	12.6	980	0	
12:02	962.8	33.2	47	ssw.	6.7	929	907.1	27.4	1.13	43	15.70	s.	11.4	911	0	
						750	925.6	29.4	.....	45	18.45	s.	9.7	735	0	
						500	951.0	32.2	.....	47	22.61	ssw.	7.3	490	0	
12:16	962.8	33.4	48	ssw.	6.3	396	962.8	33.4	.....	48	24.70	ssw.	6.3	388	.....	Few St.Cu.

August 4, 1916, series (No. 2).

P. M.																
12:49	962.8	34.0	47	ssw.	7.2	396	962.8	34.0	.....	47	25.01	ssw.	7.2	388	.....	Few St.Cu.
						500	951.8	32.5	.....	50	24.46	ssw.	7.8	490	0	
12:59	962.8	34.2	48	ssw.	6.3	723	928.4	29.3	1.44	57	23.24	ssw.	9.0	709	0	
						750	925.2	29.2	.....	56	22.70	ssw.	9.2	735	0	
						1,000	899.8	28.0	.....	49	18.53	ssw.	11.1	980	0	
						1,250	874.7	26.7	.....	43	15.07	ssw.	12.9	1,225	0	
						1,500	850.7	25.5	.....	36	11.75	ssw.	14.8	1,470	250	
1:25	962.7	35.2	45	ssw.	6.3	1,509	849.8	25.5	0.48	36	11.75	ssw.	14.9	1,479	260	Cloudless.
						1,750	826.7	23.1	.....	39	11.03	ssw.	14.8	1,715	440	
						2,000	803.1	20.6	.....	42	10.19	ssw.	14.6	1,960	630	
						2,250	780.0	18.0	.....	46	9.49	ssw.	14.5	2,205	820	
1:40	962.6	35.1	43	ssw	6.3	2,309	774.7	17.4	1.01	47	9.34	ssw.	14.5	2,263	860	
						2,500	757.3	15.4	.....	51	8.92	ssw	13.8	2,450	780	
						2,750	735.5	12.8	.....	56	8.28	ssw.	12.9	2,694	1,010	
						3,000	714.3	10.3	.....	61	7.64	sw.	11.9	2,939	1,240	
						3,250	693.6	7.7	.....	66	6.94	sw.	11.0	3,184	.....	
2:29	962.5	35.8	44	ssw.	5.8	3,357	684.3	6.6	−1.06	68	6.63	sw.	10.6	3,289	.....	
						3,250	693.6	7.8	.....	65	6.88	sw.	10.8	3,184	.....	
						3,000	714.3	10.5	.....	59	7.49	ssw.	11.2	2,939	1,270	
						2,750	735.5	13.2	.....	53	8.04	ssw.	11.6	2,694	1,080	
2:40	962.5	36.6	42	ssw.	5.8	2,690	741.5	13.9	0.97	51	8.10	ssw.	11.7	2,636	1,040	
						2,500	753.0	15.7	.....	49	8.74	ssw.	12.5	2,450	950	
						2,250	780.0	18.2	.....	46	9.61	ssw.	13.6	2,205	830	
						2,000	803.1	20.6	.....	44	10.68	ssw.	14.7	1,960	710	
3:06	962.5	36.6	39	ssw.	5.8	1,754	826.6	23.0	1.02	42	11.80	ssw.	15.7	1,719	590	
						1,500	850.7	25.6	.....	40	13.14	ssw.	14.2	1,470	330	
3:13	962.5	36.4	41	ssw.	7.2	1,254	875.0	28.1	0.73	39	14.83	ssw.	12.7	1,229	70	
						1,000	899.8	30.0	.....	44	18.67	ssw.	11.3	980	0	
3:27	962.5	36.4	40	ssw.	6.3	758	924.9	31.7	1.35	49	22.91	ssw.	10.0	743	0	
						750	925.2	31.8	.....	49	23.04	ssw.	9.9	735	0	
						500	951.8	35.2	.....	43	21.45	ssw.	7.0	490	0	
3:35	962.5	36.6	41	ssw.	5.8	396	962.5	36.6	.....	41	25.19	ssw.	5.8	388	.....	Cloudless.

TABLE 6.—*Free-air data from kite flights at Drexel Aerological Station, August, 1916*—Continued.

August 4, 1916, series (No. 3).

Surface.						At different heights above sea.											
Time.	Pressure.	Temperature.	Relative humidity.	Wind.		Altitude.	Pressure.	Temperature.	$\frac{\Delta t}{100\ m.}$	Humidity.		Wind.		Potential.		Remarks.
				Dir.	Vel.					Rel.	Vap. pres.	Dir.	Vel.	Gravity.	Electric.	
P. M.	*mb.*	°*C.*	%		*m. p. s.*	*m.*	*mb.*	°*C.*		%	*mb.*		*m. p. s.*	10^5 *ergs.*	*volts.*	
4:21	962.6	36.2	41	ssw.	5.8	396	962.6	36.2	.....	41	24.63	ssw.	5.8	388	.....	Cloudless.
						500	951.8	35.1	.....	41	23.19	ssw.	7.7	490	0	
						750	926.0	32.4	.....	40	19.46	ssw.	12.4	735	0	
4:30	962.6	36.2	42	ssw.	6.3	763	924.5	32.3	1.06	40	19.35	ssw.	12.6	748	0	
						1,000	904.0	29.9	.....	42	17.72	ssw.	11.9	980	0	
4:43	962.7	36.2	42	ssw.	6.7	1,231	877.5	27.5	1.03	44	16.16	ssw.	11.3	1,207	0	
						1,250	875.3	27.3	.....	44	15.97	ssw.	11.4	1,225	0	
						1,500	850.5	24.9	.....	46	14.49	ssw.	12.4	1,470	0	
4:55	962.8	35.9	41	ssw.	6.3	1,698	831.9	22.9	0.99	48	13.41	ssw.	13.2	1,664	0	
						1,750	831.5	22.3	.....	49	13.20	ssw.	13.1	1,715	50	
						2,000	803.5	19.6	.....	54	12.32	ssw.	12.9	1,960	280	
						2,250	780.7	17.0	.....	59	11.43	sw.	12.7	2,205	520	
5:14	962.8	35.8	41	ssw.	5.8	2,425	764.9	15.1	1.08	63	10.81	sw.	12.5	2,374	680	
						2,500	757.9	14.4	.....	63	10.33	sw.	12.1	2,450	700	
						2,750	735.6	12.3	.....	61	8.73	sw.	10.9	2,694	750	
						3,000	714.0	10.1	.....	60	7.42	sw.	9.8	2,939	.....	Cu. on northern horizon.
						3,250	692.8	8.0	.....	58	6.22	sw.	8.6	3,184	.....	
6:15	962.8	34.3	50	s.	3.6	3,275	691.1	7.8	0.88	58	6.14	sw.	8.5	3,208	.....	
						3,250	692.8	8.0	.....	58	6.22	sw.	8.5	3,184	.....	
						3,000	714.0	10.2	.....	60	7.47	sw.	8.9	2,939	.....	
						2,750	735.6	12.5	.....	61	8.84	sw.	9.2	2,694	720	
						2,500	757.9	14.7	.....	63	10.54	sw.	9.6	2,450	620	
6:32	962.8	34.0	51	s.	3.6	2,353	771.4	16.0	1.06	64	11.64	sw.	9.8	2,306	565	
						2,250	780.7	17.1	.....	62	12.09	sw.	9.7	2,205	480	
						2,000	803.5	19.8	.....	58	13.40	ssw.	9.4	1,960	260	
						1,750	831.5	22.4	.....	55	14.90	ssw.	9.2	1,715	40	
6:44	962.8	33.5	52	s.	3.6	1,701	831.9	22.9	1.03	54	15.08	ssw.	9.2	1,667	0	
						1,500	850.5	25.0	.....	52	16.47	ssw.	11.1	1,470	0	
6:56	962.8	32.8	53	s.	4.0	1,265	874.1	27.4	1.02	50	18.26	s.	13.4	1,240	0	
						1,250	875.3	27.6	.....	50	18.47	s	13.4	1,225	0	
						1,000	904.0	30.1	.....	45	19.21	s.	14.0	980	0	
7:05	962.8	32.6	53	s.	3.6	796	921.0	32.2	0.79	42	20.20	s.	14.4	780	0	
						750	926.0	32.6	.....	42	20.66	s.	14.0	735	0	
7:13	962.9	32.5	51	s.	3.6	542	947.4	34.2	−1.16	40	21.52	s.	12.3	531	0	
						500	951.8	33.7	.....	43	22.50	s.	9.8	490	0	
7:15	962.9	32.5	50	s.	3.6	396	962.9	32.5	.....	50	24.46	s.	3.6	388	.....	3/10 Ci., sw.; 2/10 Cu., sw.

August 4, 1916, series (No. 4).

P. M.																
7:51	963.1	31.1	56	s.	3.1	396	963.1	31.1	.....	56	25.31	s.	3.1	388	.....	2/10 Ci., sw.; 2/10 Cu. sw.
						500	952.0	32.1	.....	49	23.49	s.	10.7	490	0	
7:53	963.1	30.9	57	s.	3.1	598	941.8	33.0	−0.94	42	21.13	s.	17.8	586	0	Lightning.
						750	926.0	32.0	.....	41	19.50	s.	15.4	735	0	
7:59	963.1	30.2	59	s.	3.1	801	920.7	31.7	0.64	41	19.17	s.	14.7	785	0	
						1,000	900.7	29.6	.....	43	17.84	s.	14.4	980	0	
8:11	963.2	29.6	62	sse.	2.7	1,252	875.6	26.9	1.06	46	16.31	s.	14.1	1,227	0	
						1,500	851.0	24.3	.....	50	15.20	ssw.	13.0	1,470	0	
8:25	963.4	29.2	65	sse.	2.7	1,700	831.7	22.2	1.05	53	14.19	ssw.	12.1	1,666	0	
						1,750	827.3	21.7	.....	54	14.02	ssw.	11.7	1,715	30	
						2,000	804.0	19.0	.....	60	13.18	ssw.	9.6	1,960	170	
8:55	963.7	29.2	66	s.	3.1	2,125	792.3	17.6	1.08	63	12.68	ssw.	8.6	2,082	240	
						2,250	781.0	16.2	.....	65	11.97	ssw.	7.4	2,205	410	
						2,500	758.3	13.4	.....	68	10.45	sw.	4.9	2,450	.....	
9:54	964.4	29.2	65	s.	4.0	2,521	756.8	13.2	1.09	68	10.32	sw.	4.7	2,470	.....	Lightning.
						2,500	758.3	13.4	.....	68	10.45	sw.	4.9	2,450	.....	
						2,250	781.1	16.1	.....	66	12.08	sw.	6.1	2,205	240	
10:25	964.8	29.6	60	s.	4.0	2,081	797.2	17.9	1.04	64	13.13	sw.	7.0	2,039	0	
						2,000	805.0	18.7	.....	64	13.80	sw.	7.9	1,960	0	
						1,750	829.0	21.4	.....	62	15.80	ssw	10.8	1,715	0	
10:42	965.0	29.1	61	s.	2.7	1,736	830.0	21.5	1.00	62	15.90	ssw	11.0	1,701	0	
						1,500	852.8	23.9	.....	57	16.91	ssw.	11.8	1,470	0	
10:55	965.1	28.6	63	sse.	2.7	1,267	875.6	26.2	0.93	52	17.09	ssw.	12.5	1,242	0	
						1,250	877.7	26.4	.....	52	17.90	ssw.	12.7	1,225	0	
						1,000	902.1	28.7	.....	48	18.90	ssw.	14.9	980	0	
11:05	965.2	28.0	66	sse.	1.3	784	924.2	30.7	1.10	45	19.85	ssw.	16.9	769	0	
						750	928.0	31.1	.....	44	19.89	ssw.	18.5	735	0	
11:13	965.3	27.6	70	sse.	1.3	700	933.0	31.7	−1.41	43	20.11	ssw.	20.8	686	0	
						500	594.0	28.9	.....	62	24.70	s.	8.6	490	0	Thunderstorm northeast of station.
11:17	965.3	27.4	72	sse.	2.2	396	965.3	27.4	.....	72	26.29	sse.	2.2	388	.....	

TABLE 6.—*Free-air data from kite flights at Drexel Aerological Station, August, 1916*—Continued.

August 5, 1916, series (No. 5).

Surface.						At different heights above sea.											
Time.	Pressure.	Temperature.	Relative humidity.	Wind.		Altitude.	Pressure.	Temperature.	$\frac{\Delta t}{100\ m.}$	Humidity.		Wind.		Potential.		Remarks.
				Dir.	Vel.					Rel.	Vap. pres.	Dir.	Vel.	Gravity.	Electric.	
A. M.	*mb.*	°*C.*	%		*m. p. s.*	*m.*	*mb.*	°*C.*		%	*mb.*		*m. p. s.*	10^5 *ergs.*	*volts.*	
5:21	967.2	24.6	76	s.	3.1	396	967.2	24.6	.....	76	23.51	s.	3.1	388	.....	3/10 A.Cu., sw.
						500	955.9	25.6	.....	69	22.66	ssw.	6.3	490	0	
						750	939.3	28.1	.....	51	19.40	ssw.	14.2	735	0	
5:31	967.2	24.7	76	s.	3.6	857	918.1	29.2	−1.00	43	17.43	sw.	17.5	840	0	
						1,000	903.2	28.1	.....	45	17.11	sw.	15.5	980	0	
						1,250	877.8	26.2	.....	48	16.33	sw.	12.1	1,225	0	
5:44	967.2	24.4	78	s.	3.6	1,389	864.7	25.1	0.77	50	15.94	sw.	10.2	1,362	0	
						1,500	853.5	23.9	.....	53	15.72	sw.	9.6	1,470	0	
						1,750	830.0	21.2	.....	59	14.86	sw.	8.3	1,715	0	
6:14	967.4	25.0	76	sse.	2.7	1,929	813.0	19.2	1.09	64	14.24	sw.	7.3	1,891	0	4/10 A.Cu., sw.; 1/10 St.Cu., sw.
						2,000	806.1	18.5	.....	66	14.06	ssw.	7.3	1,960	0	
						2,250	783.2	16.0	.....	74	13.45	s.	7.3	2,205	0	
7:52	968.2	26.3	76	ne.	1.8	2,268	782.1	15.8	1.00	74	13.28	s.	7.3	2,223	0	
						2,500	760.3	13.6	.....	80	12.46	s.	7.8	2,450	0	
						2,750	738.5	11.2	.....	86	11.44	s.	8.4	2,694	0	
						3,000	717.0	8.8	.....	93	10.54	s.	8.9	2,939	0	
8:01	968.2	26.6	76	e.	2.2	3,178	701.6	7.1	0.96	97	9.79	s.	9.3	3,123	0	
						3,000	717.0	8.8	.....	92	10.42	s.	9.0	2,939	0	
						2,750	738.5	11.2	.....	85	11.30	s.	8.7	2,694	0	
						2,500	760.3	13.7	.....	77	12.07	s.	8.3	2,450	0	
						2,250	783.2	16.1	.....	70	12.81	s.	8.0	2,205	0	
8:20	968.2	27.5	69	e.	2.7	2,142	793.4	17.1	1.22	67	13.06	s.	7.8	2,099	0	4/10 St.Cu., s.
						2,000	806.1	18.8	.....	63	13.67	s.	7.9	1,960	0	
						1,750	830.0	21.9	.....	56	14.72	ssw.	8.1	1,715	0	
8:33	968.2	27.8	66	se.	1.8	1,741	831.1	22.0	1.04	56	14.81	ssw.	8.1	1,706	0	
						1,500	854.0	24.5	.....	48	14.76	sw.	7.4	1,470	0	
8:43	968.2	28.8	65	ese.	1.8	1,395	864.7	25.6	0.25	45	14.78	sw.	7.1	1,367	0	
						1,250	878.9	25.9	.....	45	15.04	sw.	7.3	1,225	0	
8:47	968.2	29.2	65	e.	1.8	1,104	893.7	26.3	−2.50	44	15.06	sw.	7.5	1,082	0	
						1,000	904.0	23.7	.....	62	18.17	ssw.	7.5	980	0	
8:53	968.2	29.4	61	sse.	1.8	968	907.6	22.9	1.14	68	18.99	s.	7.5	949	0	
						750	930.2	25.4	.....	65	21.09	s.	5.3	735	0	
						500	857.0	28.2	.....	62	23.72	sse.	2.8	490	0	
8:59	968.2	29.4	61	sse.	1.8	396	968.2	29.4	.....	61	25.01	sse.	1.8	388	.....	3/10 St.Cu., s.

August 5, 1916, series (No. 6).

A. M.																
11:01	967.9	31.4	55	se.	4.0	396	967.9	31.4	.....	55	25.29	se.	4.0	388	.....	Cloudless.
						500	956.7	29.9	.....	57	24.05	se.	5.0	490	0	
						750	930.0	26.4	.....	62	21.35	se.	7.3	735	0	
11:08	967.9	31.8	54	se.	4.0	819	923.0	25.4	1.42	63	20.44	se.	8.0	803	0	
						1,000	904.0	23.9	.....	70	20.76	se.	10.0	980	0	
11:38	967.7	31.9	58	se.	4.5	1,135	890.1	22.8	0.82	75	20.82	se.	11.5	1,113	0	
						1,250	878.1	23.7	.....	63	18.47	se.	11.1	1,225	0	
11:40	967.7	32.1	58	se.	4.5	1,425	861.3	25.1	−0.79	45	14.34	se.	10.5	1,397	0	
						1,500	853.1	23.9	.....	48	14.24	se.	10.5	1,470	0	
11:47	967.7	32.8	56	ese.	4.5	1,719	832.8	20.4	1.60	55	13.18	se.	10.4	1,685	0	
						1,750	833.6	20.1	.....	55	12.94	se.	10.4	1,715	20	
						2,000	805.0	17.4	.....	57	11.33	sse.	10.8	1,960	200	
P. M.																
12:18	967.5	32.8	55	sse.	5.4	2,254	782.4	14.7	1.07	60	10.04	s.	11.2	2,209	400	Cloudless.
						2,500	759.2	12.8	.....	54	7.98	s.	11.7	2,450	660	
						2,750	737.0	10.8	.....	48	6.22	s.	12.2	2,694	920	
12:32	967.4	33.1	50	sse.	4.5	2,958	719.2	9.2	0.78	43	5.01	s.	12.6	2,898	1,140	
						3,000	715.0	9.0	.....	42	4.82	s.	12.6	2,939	1,200	
						3,250	694.0	7.5	.....	37	3.84	s.	12.4	3,184	1,540	
						3,500	673.1	6.0	.....	32	2.99	ssw.	12.3	3,429	1,880	
						3,750	653.2	4.5	.....	27	2.27	ssw.	12.1	3,673	.....	
1:13	967.1	33.8	49	sse.	4.5	3,803	649.0	4.2	0.64	26	2.14	ssw.	12.1	3,725	.....	
						3,750	653.2	4.6	.....	27	2.29	ssw.	12.2	3,673	.....	
						3,500	673.1	6.3	.....	33	3.15	ssw.	12.6	3,429	1,880	
						3,250	694.0	8.0	.....	38	4.08	s.	13.0	3,184	1,530	
						3,000	715.0	9.7	.....	44	5.29	s.	13.4	2,939	1,250	
1:39	967.0	34.7	42	ssw.	6.3	2,848	728.5	10.7	−0.58	48	6.18	s.	13.6	2,790	1,120	
1:41	967.0	34.8	42	ssw.	6.3	2,750	737.0	10.1	.....	59	7.29	s.	14.0	2,694	1,030	Few Cu., se.; altitude of Cu. base about 2,250 m.
						2,727	739.4	10.0	0.90	62	7.61	s.	14.1	2,672	1,010	
						2,500	759.2	12.0	.....	62	8.70	s.	15.0	2,450	800	
						2,250	782.0	14.2	.....	62	10.04	s.	15.9	2,205	540	
2:05	966.9	35.7	42	s.	6.3	2,000	805.0	16.5	.....	63	11.83	sse.	16.8	1,960	260	
						1,767	827.9	18.6	1.04	63	13.50	sse.	17.7	1,732	0	
						1,750	833.6	18.8	.....	63	13.67	sse.	17.5	1,715	0	
						1,500	853.1	21.4	.....	63	16.06	sse.	15.1	1,470	0	
						1,250	878.1	24.0	.....	63	18.80	s.	12.7	1,225	0	
2:11	966.8	35.2	40	s.	6.7	1,202	883.3	24.5	1.16	63	19.37	s.	12.2	1,178	0	
						1,000	903.6	26.8	.....	58	20.44	s.	13.1	980	0	
2:25	966.7	35.2	41	s.	7.2	779	926.5	29.4	1.57	52	21.32	s.	14.0	764	0	
						750	929.3	29.9	.....	51	21.52	s.	13.3	735	0	
						500	950.3	33.8	.....	44	23.15	s.	7.7	490	0	
2:32	966.6	35.4	41	s.	5.4	396	966.6	35.4	.....	41	23.58	s.	5.4	388	.....	3/10 Cu., se.

TABLE 6.—*Free-air data from kite flights at Drexel Aerological Station, August, 1916*—Continued.

August 5, 1916, series (No. 7).

Surface.						At different heights above sea.										Remarks.
Time.	Pressure.	Temperature.	Relative humidity.	Wind.		Altitude.	Pressure.	Temperature.	ΔH	Humidity.		Wind.		Potential.		
				Dir.	Vel.					Rel.	Vap. pres.	Dir.	Vel.	Gravity.	Electric.	
P. M.	*mb.*	°*C.*	%		*m. p. s.*	*m.*	*mb.*	°*C.*		%	*mb.*		*m. p. s.*	*10^5 ergs.*	*volts.*	
3:08	966.5	35.3	40	ssw.	6.7	396	966.5	35.3	.....	40	22.88	ssw.	6.7	388	.....	2/10 Cu., s.
						500	955.0	33.4	.....	43	22.13	ssw.	8.8	490	0	
3:17	966.4	35.1	39	s.	7.2	744	929.8	29.1	1.78	50	20.15	s.	13.7	730	0	
						750	928.8	29.0	.....	50	20.04	s.	13.7	735	0	
						1,000	902.6	26.6	.....	55	19.16	sse.	13.1	980	0	
3:26	966.4	34.8	41	s.	6.3	1,148	888.2	25.1	0.99	58	18.48	sse.	12.8	1,125	0	
						1,250	877.2	23.9	.....	61	18.09	sse.	13.3	1,225	0	
						1,500	852.7	20.9	.....	68	16.84	s.	14.7	1,470	0	
3:38	966.3	35.0	40	s.	7.2	1,520	851.0	20.7	1.18	69	16.85	s.	14.8	1,490	0	
						1,750	828.6	18.1	.....	76	15.79	s.	14.5	1,715	290	
						2,000	805.0	15.3	.....	84	14.60	s.	14.2	1,960	600	
3:55	966.2	34.6	42	s.	6.3	2,066	798.3	14.6	1.12	86	14.29	s.	14.1	2,025	680	2/10 Cu., s.
						2,250	781.6	13.3	.....	78	11.91	s.	13.0	2,205	750	
						2,500	758.6	11.6	.....	66	9.02	ssw.	11.4	2,450	850	
4:25	966.1	34.8	39	s.	5.4	2,589	750.3	11.0	0.69	62	8.14	ssw.	10.9	2,537	890	
						2,750	736.2	10.0	.....	62	7.61	ssw.	10.6	2,694	960	
						3,000	714.4	8.4	.....	61	6.72	ssw.	10.1	2,939	1,390	
						3,250	693.0	6.7	.....	60	5.89	ssw.	9.6	3,184	.....	
4:51	965.9	34.5	41	s.	6.3	3,325	686.6	6.2	0.58	60	5.69	ssw.	9.5	3,257	.....	
						3,250	693.0	6.6	.....	63	6.14	ssw.	9.9	3,184	.....	
						3,000	714.4	7.8	.....	74	7.83	ssw.	11.2	2,939	.....	
5:03	965.9	34.3	42	s.	5.8	2,950	719.0	8.1	0.92	76	8.21	ssw.	11.5	2,890	1,105	
						2,750	736.2	9.9	.....	74	9.03	ssw.	12.1	2,694	980	
						2,500	758.6	12.2	.....	72	10.23	ssw.	12.8	2,450	870	Cloudless.
						2,250	781.6	14.5	.....	70	11.56	s.	13.5	2,205	680	
						2,000	805.0	16.8	.....	68	13.01	s.	14.2	1,960	380	
						1,750	828.6	19.1	.....	66	14.59	s.	14.9	1,715	70	
5:30	965.7	34.0	44	sse.	4.9	1,654	837.6	20.0	1.08	65	15.20	s.	15.2	1,621	0	
						1,500	852.7	21.7	.....	61	15.84	s.	14.7	1,470	0	
						1,250	877.2	24.4	.....	54	16.51	s.	13.9	1,225	0	
5:42	965.6	33.5	46	s.	4.9	1,192	883.1	25.0	1.04	52	16.47	s.	13.7	1,169	0	
						1,000	902.6	27.0	.....	50	17.83	s.	13.8	980	0	
5:53	965.5	33.2	46	s.	4.5	818	921.1	28.9	1.04	48	19.12	s.	13.8	802	0	
						750	928.8	29.6	.....	48	19.91	s.	12.3	735	0	
						500	955.0	32.2	.....	46	22.13	s.	6.8	490	0	
5:59	965.5	33.3	46	s.	4.5	396	965.5	33.3	.....	46	23.54	s.	4.5	388	.....	Cloudless.

August 6, 1916.

A. M.																
7:16	967.2	26.0	72	s.	7.6	396	967.2	26.0	.....	72	24.21	s.	7.6	388	.....	1/10 Ci., sw.
						500	956.0	25.2	.....	73	23.40	s.	12.4	490	0	
7:18	967.2	26.3	72	s.	6.7	625	942.4	24.3	0.74	75	22.79	ssw.	18.1	613	0	
						750	939.5	26.1	.....	64	21.64	ssw.	19.4	735	0	
7:25	967.2	26.8	70	s.	8.9	774	926.6	26.5	−1.48	62	21.47	ssw.	19.6	759	0	
						1,000	903.0	24.8	.....	64	20.04	ssw.	19.7	980	0	
7:33	967.2	27.0	68	s.	8.0	1,127	890.2	23.8	0.76	65	19.17	ssw.	19.8	1,105	0	
						1,250	877.5	22.9	.....	65	18.15	ssw.	17.9	1,225	0	
						1,500	852.5	21.1	.....	64	16.02	ssw.	14.1	1,470	0	
7:53	967.2	27.2	69	s.	8.0	1,652	838.0	20.0	0.72	63	14.73	ssw.	11.8	1,619	70	
						1,750	828.2	19.1	.....	64	14.15	ssw.	11.2	1,715	110	
						2,000	804.9	16.8	.....	68	13.01	ssw.	9.6	1,960	220	
						2,250	772.0	14.6	.....	71	11.80	ssw.	8.1	2,205	260	
8:16	967.2	27.8	66	s.	8.5	2,433	765.0	12.9	0.91	74	11.01	ssw.	7.0	2,384	260	Few Ci., sw.
						2,500	759.1	12.4	.....	74	10.66	ssw.	7.0	2,450	260	
						2,750	737.2	10.4	.....	75	9.46	ssw.	6.9	2,694	470	
						3,000	716.0	8.3	.....	75	8.21	ssw.	6.9	2,939	910	
9:40	967.2	29.8	62	s.	8.0	3,216	696.3	6.5	0.82	76	7.36	ssw.	6.8	3,151	1,280	
						3,250	695.0	6.3	.....	75	7.16	ssw.	7.0	3,184	.....	
						3,500	674.5	5.1	.....	66	5.80	ssw.	8.5	3,429	.....	
						3,750	654.0	3.9	.....	58	4.69	ssw.	10.0	3,673	.....	
						4,000	633.0	2.7	.....	49	3.64	ssw.	11.5	3,918	.....	
9:53	967.2	29.9	62	ssw.	6.7	4,053	628.6	2.4	0.54	47	3.41	ssw.	11.8	3,970	.....	
						4,000	633.0	2.7	.....	48	3.56	ssw.	11.7	3,918	.....	
						3,750	654.0	4.2	.....	53	4.37	ssw.	11.4	3,673	1,070	
						3,500	674.5	5.8	.....	58	5.35	ssw.	11.0	3,429	1,010	
						3,250	695.0	7.4	.....	63	6.49	ssw.	10.6	3,184	960	
						3,000	716.0	8.9	.....	68	7.75	ssw.	10.2	2,939	910	
10:17	967.1	30.5	61	s.	8.0	2,861	727.2	9.8	0.86	71	8.61	ssw.	10.0	2,803	880	
						2,750	737.2	10.8	.....	70	9.06	ssw.	10.1	2,694	830	
						2,500	759.1	12.9	.....	69	10.27	ssw.	10.3	2,450	610	
10:30	967.0	30.8	59	s.	8.9	2,278	779.3	14.8	0.85	68	11.44	ssw.	10.5	2,232	425	
						2,250	772.0	15.0	.....	68	11.59	ssw.	10.5	2,205	400	
						2,000	804.9	17.2	.....	66	12.95	ssw.	10.3	1,960	250	
						1,750	828.2	19.3	.....	65	14.55	ssw.	10.1	1,715	60	
10:44	967.0	31.0	59	ssw.	8.9	1,654	838.0	20.1	0.93	64	15.06	ssw.	10.0	1,621	0	
						1,500	852.5	21.5	.....	63	16.16	ssw.	9.9	1,470	0	
						1,250	877.5	23.8	.....	60	17.69	ssw.	9.7	1,225	0	
10:55	966.9	31.3	58	ssw.	7.6	1,212	881.7	24.2	0.26	60	18.12	ssw.	9.7	1,188	0	
						1,000	903.0	24.8	.....	68	21.29	ssw.	9.6	980	0	
11:04	966.9	31.6	56	ssw.	9.4	793	924.8	25.3	1.49	75	24.20	ssw.	9.5	778	0	
						750	939.5	25.9	.....	73	24.40	ssw.	9.4	735	0	
						500	956.0	29.7	.....	61	25.45	ssw.	8.8	490	0	
11:08	966.9	31.2	56	ssw.	8.5	396	966.9	31.2	.....	56	25.46	ssw.	8.5	388	.....	2/10 Ci., sw.; 1/10 Ci.Cu., sw.

TABLE 6.—*Free-air data from kite flights at Drexel Aerological Station, August, 1916*—Continued.

August 7, 1916.

Surface.						At different heights above sea.										Remarks.
Time.	Pressure.	Temperature.	Relative humidity.	Wind.		Altitude.	Pressure.	Temperature.	Δt / 100 m.	Humidity.		Wind.		Potential.		
				Dir.	Vel.					Rel.	Vap. pres.	Dir.	Vel.	Gravity.	Electric.	
A. M.	*mb.*	*°C.*	*%*		*m. p. s.*	*m.*	*mb.*	*°C.*		*%*	*mb.*		*m. p. s.*	*10⁵ ergs.*	*volts.*	
7:22	968.6	21.9	89	n.	3.1	396	968.6	21.0	.....	89	22.13	n.	3.1	388	.....	5/10 A.Cu., sw.; 4/10 St.Cu., n.
						500	956.7	20.2	.....	92	21.79	n.	6.8	490	0	St.Cu. base about 750 m.
7:27	968.6	21.0	89	n.	3.1	676	937.8	18.8	0.79	97	21.05	n.	13.0	663	0	
						750	929.6	19.3	.....	93	20.82	n.	11.9	735	0	
7:36	968.8	21.4	88	n.	3.1	906	913.3	20.3	−0.65	84	20.01	nnw.	9.7	888	0	
						1,000	903.0	19.2	.....	88	19.58	nnw.	8.2	980	0	
7:53	969.1	21.8	86	n.	3.1	1,125	890.8	17.8	1.14	94	19.16	nnw.	6.1	1,103	0	
						1,250	877.8	18.7	.....	85	18.33	nw.	6.7	1,225	0	
						1,500	853.3	20.4	.....	66	15.82	wnw.	7.9	1,470	0	
8:23	969.5	22.2	85	n.	3.1	1,515	851.8	20.5	−0.69	64	15.44	wnw.	8.0	1,485	0	
						1,750	829.1	18.7	.....	70	15.10	wnw.	8.6	1,715	0	
						2,000	805.8	16.7	.....	77	14.64	w.	9.1	1,960	370	
8:45	969.7	22.6	84	n.	4.5	2,066	799.1	16.2	0.78	79	14.55	w.	9.3	2,025	500	
						2,250	782.7	14.8	.....	81	13.63	w.	9.2	2,205	880	
						2,500	759.8	12.8	.....	84	12.42	w.	9.1	2,450	.....	9/10 St.Cu., n.; water on wire.
						2,750	737.5	10.9	.....	88	11.48	w.	9.0	2,694	.....	
9:22	970.2	22.2	86	n.	4.0	2,771	735.3	10.7	0.74	88	11.33	w.	9.0	2,715	.....	
						2,750	737.5	10.8	.....	88	11.40	w.	9.0	2,694	.....	
						2,500	759.8	12.6	.....	84	12.26	w.	8.5	2,450	.....	
						2,250	782.7	14.4	.....	79	12.96	wnw.	8.0	2,205	.....	
9:38	970.3	21.6	87	nnw.	3.6	2,012	804.0	16.1	0.79	75	13.72	wnw.	7.6	1,972	380	10/10 St., n.
						2,000	805.8	16.2	.....	75	13.82	wnw.	7.6	1,960	380	
						1,750	829.4	18.1	.....	69	14.33	nw.	8.4	1,715	320	
9:53	970.5	22.0	86	n.	3.6	1,554	848.5	19.7	−0.17	64	14.69	nw.	9.0	1,523	270	
						1,500	853.9	19.6	.....	67	15.28	nw.	8.8	1,470	250	
						1,250	879.6	19.2	.....	78	17.36	nnw.	7.9	1,225	70	
10:11	970.7	22.3	84	n.	4.0	1,153	889.1	19.0	−1.43	83	18.24	nnw.	7.5	1,130	0	
10:12	970.7	22.2	85	n.	4.0	1,020	902.9	17.1	0.38	87	16.96	nnw.	7.5	1,000	0	
						1,000	905.3	17.2	.....	88	17.27	nnw.	7.6	980	0	
10:20	970.8	22.0	86	n.	4.5	760	930.8	18.1	1.02	97	20.15	n.	8.3	745	0	
						750	932.0	18.2	.....	97	20.27	n.	8.2	735	0	St. Base about 700 m.
						500	958.0	20.7	.....	90	21.98	n.	5.0	490	0	
10:26	970.9	21.8	87	n.	4.0	396	970.9	21.8	.....	87	22.72	n.	4.0	3.8	.....	10/10 St., n.

August 8, 1916.

P. M.																
7:45	965.1	24.3	61	ssw.	3.1	396	965.1	24.3	.....	61	18.54	ssw.	3.1	388	.....	6/10 Cl., w.
						500	953.8	23.9	.....	58	17.20	s.	3.9	490	0	
8:01	965.2	23.7	62	ssw.	3.1	675	935.0	23.2	0.39	54	15.36	sse.	5.3	662	0	
						750	926.9	22.5	.....	54	14.72	sse.	5.4	735	0	
						1,000	900.0	20.1	.....	56	13.18	se.	5.9	980	0	
8:40	965.7	23.2	61	ssw.	4.5	1,245	875.8	17.7	0.96	57	11.54	se.	6.3	1,220	130	
						1,500	849.3	15.3	.....	61	10.60	ese.	6.1	1,470	510	
9:02	965.9	22.7	61	ssw.	3.6	1,731	826.9	13.1	0.95	64	9.65	ese.	6.0	1,697	860	
						1,750	825.0	13.2	.....	62	9.41	ese.	5.8	1,715	.....	
9:08	965.8	22.6	61	ssw.	3.6	1,933	807.1	14.4	−0.74	42	6.89	ese.	3.4	1,895	.....	
						1,750	825.0	12.9	.....	60	8.93	se.	5.5	1,715	.....	
9:13	965.8	22.5	62	ssw.	2.7	1,728	826.9	12.7	1.09	62	9.11	se.	5.7	1,694	0	
						1,500	849.3	15.2	.....	63	10.88	se.	6.7	1,470	0	
						1,250	874.8	17.9	.....	64	13.13	se.	7.9	1,225	0	
9:28	965.7	22.5	62	ssw.	2.7	1,243	875.8	18.0	0.79	64	13.21	se.	7.9	1,219	0	
9:35	965.7	22.3	64	ssw.	3.1	1,040	896.4	19.6	0.43	52	11.86	sse.	6.9	1,020	0	
						1,000	900.0	19.8	.....	52	12.01	sse.	6.7	980	0	
						750	926.9	20.8	.....	56	13.76	s.	5.2	735	0	Bright moonlight.
						500	953.8	21.9	.....	59	15.51	s.	3.7	490	0	
9:51	965.6	22.4	60	ssw.	3.1	396	965.6	22.4	.....	60	16.25	ssw.	3.1	388	.....	Cloudless.

August 9, 1916.

A. M.																
7:26	963.0	21.5	64	se.	3.6	396	963.0	21.5	.....	64	16.42	se.	3.6	388	.....	1/10 A.Cu., s.
						500	951.3	22.6	.....	62	17.01	sse.	8.0	490	0	
7:28	963.0	21.8	64	se.	3.6	670	933.2	24.3	−1.02	60	18.23	s.	15.3	657	0	
						750	924.7	23.7	.....	62	18.17	s.	14.6	735	0	
						1,000	898.2	22.0	.....	68	17.98	s.	12.5	980	300	
						1,250	873.0	20.2	.....	73	17.29	ssw.	10.4	1,225	660	
7:57	962.8	23.0	61	sse.	4.0	1,446	853.6	18.8	0.75	78	16.93	ssw.	8.8	1,417	950	2/10 A.Cu., ssw.
						1,500	848.0	18.4	.....	79	16.72	ssw.	8.8	1,470	1,220	
						1,750	824.0	16.4	.....	82	15.29	ssw.	9.0	1,715	1,150	
						2,000	800.1	14.5	.....	85	14.03	ssw.	9.3	1,960	1,880	
9:16	962.7	27.0	53	sse.	5.4	2,127	789.0	13.5	0.78	86	13.30	ssw.	9.4	2,084	1,985	
						2,250	777.2	12.8	.....	81	11.97	ssw.	9.2	2,205	2,030	
						2,500	754.8	11.4	.....	71	9.57	ssw.	8.9	2,450	2,110	3/10 A.Cu., sw.
						2,750	737.3	10.0	.....	61	7.49	ssw.	8.6	2,694	2,170	
10:22	962.4	28.6	51	s.	8.0	2,820	726.6	9.6	0.56	58	6.93	ssw.	8.5	2,763	2,190	
						3,000	710.0	8.2	.....	64	6.96	ssw.	9.9	2,939	.....	3/10 Ci.St., sw.; 4/10 A.Cu., sw.
						3,250	699.0	6.2	.....	72	6.83	ssw.	11.8	3,184	.....	
						3,500	668.0	4.3	.....	81	6.73	ssw.	13.6	3,429	.....	
10:30	962.3	28.5	51	s.	5.4	3,721	651.1	2.6	0.78	89	6.56	ssw.	15.3	3,645	.....	9/10 A.Cu., sw.
						3,750	647.8	2.4	.....	88	6.39	ssw.	15.4	3,673	.....	
						4,000	628.4	1.4	.....	85	5.75	ssw.	16.1	3,918	.....	
						4,250	609.6	0.3	.....	82	5.12	sw.	16.8	4,162	.....	
10:44	962.2	28.3	51	s.	7.2	4,448	594.8	−0.5	0.54	79	4.63	sw.	17.3	4,356	.....	
						4,250	609.6	0.8	.....	78	5.05	sw.	16.9	4,162	.....	A.Cu. base about 3,800 m.
						4,000	628.4	2.4	.....	77	5.59	sw.	16.4	3,918	.....	
						3,750	647.8	4.0	.....	76	6.18	sw.	15.8	3,673	2,860	
						3,500	668.0	5.6	.....	74	6.73	sw.	15.2	3,429	2,630	
						3,250	699.0	7.1	.....	73	7.37	sw.	14.7	3,184	2,440	

TABLE 6.—*Free-air data from kite flights at Drexel Aerological Station, August, 1916*—Continued.

August 9, 1916—Continued.

Surface.						At different heights above sea.										
Time.	Pressure.	Temperature.	Relative humidity.	Wind.		Altitude.	Pressure.	Temperature.	Δt / 100 m.	Humidity.		Wind.		Potential.		Remarks.
				Dir.	Vel.					Rel.	Vap. pres.	Dir.	Vel.	Gravity.	Electric.	
P. M.	*mb.*	°*C.*	%		*m. p. s.*	*m.*	*mb.*	°*C.*		%	*mb.*		*m. p. s.*	*0.1 cras.*	*volts.*	
12:02	961.8	30.6	52	s.	6.7	3,063	704.8	8.3	0.73	72	7.88	sw.	14.3	3,001	2,300	
						3,000	710.0	8.8	.....	72	8.16	sw.	14.3	2,939	2,230	
						2,750	737.0	10.6	.....	72	9.20	ssw.	14.2	2,694	1,970	
						2,500	754.1	12.4	.....	72	10.37	ssw.	14.0	2,450	1,710	
						2,250	776.9	14.2	.....	71	11.49	ssw.	13.8	2,205	1,450	
						2,000	799.8	16.1	.....	71	12.99	s.	13.6	1,960	1,130	
12:35	961.2	32.1	48	s.	5.4	1,770	821.8	17.8	0.85	71	14.47	s.	13.4	1,735	1,040	6/10 A.Cu., sw.
						1,750	823.1	18.0	.....	71	14.65	s.	13.4	1,715	1,020	
						1,500	847.0	20.1	.....	68	16.00	s.	13.3	1,470	800	
						1,250	872.0	22.2	.....	65	17.40	sse.	13.2	1,225	570	
						1,000	897.0	24.3	.....	62	18.84	sse.	13.1	980	300	
1:00	960.8	31.0	51	s.	6.7	789	919.2	26.1	1.35	59	19.95	sse.	13.0	774	0	
						750	923.0	26.6	.....	58	20.20	sse.	12.4	735	0	
						500	949.4	30.0	.....	53	22.49	s.	8.4	490	0	
1:15	960.7	31.4	51	s.	6.7	396	960.7	31.4	.....	51	23.45	s.	6.7	388	.....	8/10 A.Cu., sw.

August 10, 1916.

A. M.																
7:30	960.8	24.2	81	sse.	3.1	396	960.8	24.2	.....	81	24.46	sse.	3.1	388	.....	8/10 St.Cu., sw.
						500	949.0	25.0	.....	73	23.13	sse.	8.7	490	0	
7:34	960.8	24.2	81	sse.	3.6	668	931.4	26.2	−0.74	59	20.07	s.	17.7	655	0	
						750	922.3	25.5	.....	60	19.58	ssw.	16.5	735	0	
						1,000	896.3	23.6	.....	62	18.06	ssw.	13.0	980	0	
7:56	961.1	24.8	79	ssw.	4.5	1,160	881.0	22.3	0.79	64	17.24	sw.	10.8	1,137	0	1/10 A. Cu., sw.; 2/10 St. Cu., sw
						1,250	871.4	21.7	.....	64	16.61	sw.	10.7	1,225	50	
						1,500	847.3	20.0	.....	63	14.73	wsw.	10.4	1,470	190	
						1,750	823.9	18.2	.....	62	12.96	wsw.	10.2	1,715	150	
8:30	961.6	25.7	75	sw.	5.8	1,834	815.6	17.6	0.70	62	12.48	wsw.	10.1	1,798	250	
						2,000	800.1	16.3	.....	67	12.42	wsw.	11.1	1,960	440	
						2,250	777.0	14.4	.....	74	12.14	wsw.	12.5	2,205	740	
						2,500	754.0	12.4	.....	82	11.81	wsw.	13.9	2,450	1,090	
9:36	962.2	26.5	77	w.	5.4	2,684	738.3	10.9	0.79	88	11.48	wsw.	15.0	2,630	1,360	6/10 A.Cu., wsw.
						2,750	732.0	11.0	.....	84	11.03	wsw.	16.4	2,694	1,450	
9:07	962.2	26.5	76	w.	4.0	2,827	725.8	11.1	−0.14	79	10.44	wsw.	18.0	2,770	1,570	
						3,000	710.3	9.9	.....	78	9.52	wsw.	17.2	2,939	1,810	
						3,250	689.7	8.2	.....	76	8.26	wsw.	16.1	3,184	2,050	
						3,500	669.3	6.5	.....	74	7.16	wsw.	15.0	3,429	2,230	
						3,750	650.0	4.8	.....	72	6.19	wsw.	13.9	3,673	2,400	Thunder heard in southeast 9:50—10:10 a. m.
9:57	962.8	27.2	72 n	w.	4.5	3,859	638.6	3.8	0.69	71	5.69	wsw.	13.3	3,809	2,500	
						4,000	630.0	3.0	.....	69	5.23	wsw.	14.3	3,918	2,310	
						4,250	612.9	1.1	.....	64	4.24	wsw.	16.5	4,162	2,380	
						4,500	593.5	−0.8	.....	60	3.43	wsw.	18.8	4,407	2,960	
						4,750	574.8	−2.7	.....	55	2.68	wsw.	21.0	4,651	3,530	
11:15	963.6	28.8	65	w.	3.6	4,823	569.5	−3.3	0.76	54	2.51	wsw.	21.7	4,723	3,700	2/10 A.Cu., wsw.
						4,750	574.8	−2.7	.....	55	2.68	wsw.	21.4	4,651	3,600	
						4,500	593.5	−0.8	.....	59	3.37	wsw.	20.5	4,407	3,270	
						4,250	612.0	1.1	.....	62	4.10	wsw.	19.7	4,162	2,930	
						4,000	630.0	3.0	.....	66	5.00	wsw.	18.8	3,918	2,600	
						3,750	650.0	4.9	.....	70	6.06	wsw.	17.9	3,673	2,260	
						3,500	669.5	6.7	.....	74	7.26	wsw.	17.1	3,429	1,920	
						3,250	690.2	8.6	.....	78	8.71	wsw.	16.2	3,184	1,590	
P. M.																
12:07	963.8	30.1	60	nw.	2.7	3,203	694.8	9.0	0.57	79	9.07	wsw.	16.0	3,138	1,520	2/10 A.Cu., sw.; 2/10 Cu., nnw.
						3,000	711.2	10.2	.....	76	9.46	wsw.	13.1	2,939	1,350	
						2,750	733.0	11.6	.....	73	9.97	wsw.	9.6	2,694	1,210	
12:16	963.9	30.3	61	w.	2.7	2,626	738.3	11.9	−0.14	72	10.03	wsw.	8.8	2,642	1,180	
12:17	963.9	30.4	61	w.	3.1	2,554	751.0	11.7	0.71	79	10.86	wsw.	8.8	2,503	1,090	
						2,500	755.0	12.1	.....	79	11.15	wsw.	8.7	2,450	1,060	
						2,250	778.1	13.9	.....	79	12.55	w.	8.3	2,205	920	
						2,000	801.5	15.7	.....	79	14.09	w.	7.9	1,960	770	
						1,750	825.5	17.4	.....	79	15.70	wnw.	7.4	1,715	630	
						1,500	849.8	19.2	.....	79	17.58	wnw.	7.0	1,470	480	Cu. base about 1,400 m.
						1,250	874.6	21.0	.....	79	19.65	nw.	6.6	1,225	340	
12:34	964.0	30.0	60	nnw.	3.1	1,053	894.8	22.4	1.20	79	21.40	nnw.	6.3	1,032	240	
						1,000	900.0	23.0	.....	76	21.36	nnw.	6.3	980	190	
						750	926.0	26.0	.....	65	21.85	nw.	6.0	735	50	
12:52	964.1	30.3	60	nw.	4.5	719	929.7	26.4	0.99	63	21.69	nw.	6.0	705	30	
						500	953.0	28.6	.....	62	24.27	nnw.	4.4	490	0	
12:58	964.2	29.6	62	nnw.	3.6	396	964.2	29.6	.....	62	25.72	nnw.	3.6	388	.....	Few A.Cu., sw.; 3/10 Cu., nnw.

August 11, 1916.

A. M.																
7:13	975.8	17.4	83	ne.	3.1	396	975.8	17.4	.....	83	16.49	ne.	3.1	388	.....	6/10 A.St., wsw.; 3/10 A.Cu., wsw.
						500	963.9	16.8	.....	82	15.69	ne.	8.1	490	0	
7:20	975.9	17.4	83	ne.	2.7	685	943.3	15.8	0.55	81	14.54	ne.	17.1	672	0	Thunderstorm during flight.
						750	936.3	16.7	.....	70	13.31	ne.	15.5	735	0	
7:37	976.1	17.6	82	nne.	1.8	978	911.8	19.8	−1.37	53	7.62	ne.	9.8	959	0	Light rain 7:38 to 8:00 a. m.
						1,000	909.9	19.9	.....	34	7.90	ne.	9.2	980	0	
8:03	976.4	17.8	80	ne.	1.8	1,212	887.8	20.7	−0.32	41	10.01	ne.	3.8	1,188	0	8/10 A.St., wsw.; 2/10 St.Cu., wsw.
						1,000	909.9	20.1	.....	31	7.29	ene.	4.9	980	0	
8:50	976.9	18.0	80	ne.	1.8	984	911.8	20.1	−1.48	30	7.06	ene.	5.0	965	0	6/10 St.Cu., sw.; 4/10 St., sw.
						750	936.3	16.6	.....	52	9.82	nne.	6.9	735	0	Light rain began 9:08 a. m.
9:26	976.7	18.6	82	wnw.	1.3	693	943.3	15.8	0.94	57	10.23	n.	7.4	680	0	
						500	963.9	17.6	.....	74	14.90	wnw.	3.4	490	0	
9:28	976.7	18.6	83	w.	1.3	396	976.7	18.6	.....	83	17.79	w.	1.3	388	.....	10/10 St., wsw.

TABLE 6.—*Free-air data from kite flights at Drexel Aerological Station, August, 1916*—Continued.

August 12, 1916.

Surface.						At different heights above sea.										Remarks.
Time.	Pressure.	Temperature.	Relative humidity.	Wind.		Altitude.	Pressure.	Temperature.	$\frac{\Delta t}{100\ m.}$	Humidity.		Wind.		Potential.		
				Dir.	Vel.					Rel.	Vap. pres.	Dir.	Vel.	Gravity.	Electric.	
A. M.	*mb.*	°*C.*	%		*m. p. s.*	*m.*	*mb.*	°*C.*		%	*mb.*		*m. p. s.*	10^5 *ergs.*	*volts.*	
7:10	974.0	18.2	80	se.	3.1	396	974.0	18.2	.....	80	16.72	se.	3.1	388	.....	1/10 A.Cu., wsw.; 1/10 St.Cu., wsw.
						500	962.3	17.5	.....	82	16.40	se.	7.1	490	0	
7:13	974.0	18.4	80	se.	3.1	548	956.9	17.2	0.66	83	16.28	se.	8.9	537	0	
						750	934.8	19.0	.....	75	16.48	sse.	9.5	735	0	
						1,000	908.0	21.2	.....	65	16.37	s.	10.3	980	430	
7:32	974.0	19.6	79	se.	3.1	1,019	906.0	21.4	−0.89	64	16.31	s.	10.4	999	470	Thunder heard at 7:33 a. m.
						1,250	881.8	20.0	.....	81	18.94	ssw.	9.7	1,225	900	
7:48	974.0	20.4	78	ese.	3.1	1,370	870.1	19.3	0.60	90	20.15	ssw.	9.4	1,343	930	
						1,500	856.7	21.4	.....	71	18.10	sw.	9.4	1,470	970	
8:13	974.0	21.2	76	se.	3.1	1,523	854.9	21.8	−1.63	68	17.76	sw.	9.4	1,493	980	
						1,750	832.5	21.0	.....	64	15.92	wsw.	13.5	1,715	1,390	
8:25	974.0	21.9	76	se.	3.6	1,886	820.0	20.6	0.33	62	15.05	wsw.	16.0	1,848	1,640	
						2,000	809.0	19.6	.....	65	14.83	wsw.	16.4	1,960	1,810	
						2,250	786.0	17.5	.....	70	14.00	wsw.	17.2	2,205	2,190	
						2,500	763.3	15.4	.....	76	13.30	wsw.	18.1	2,450	2,570	
8:40	974.0	22.5	74	ese.	4.5	2,607	753.9	14.5	0.85	78	12.88	wsw.	18.5	2,554	2,730	3/10 St.Cu., wsw.
						2,750	741.2	13.2	.....	82	12.44	wsw.	18.0	2,694	2,950	Electric potential very variable.
						3,000	719.8	10.9	.....	88	11.48	wsw.	17.0	2,939	3,000	
						3,250	698.5	8.6	.....	94	10.50	wsw.	16.1	3,184	3,000	
9:15	974.2	23.6	72	ne.	2.2	3,351	690.1	7.7	0.92	97	10.19	wsw.	15.7	3,283	3,000	3/10 A.Cu., wsw.; 6/10 St.Cu., wsw.
						3,250	698.5	8.6	.....	94	10.50	wsw.	15.8	3,184	2,900	
						3,000	719.8	10.9	.....	88	11.48	wsw.	16.0	2,939	2,640	Light rain 9:38–9:50 a. m.
						2,750	741.2	13.2	.....	81	12.29	wsw.	16.2	2,694	2,390	
						2,500	763.3	15.6	.....	74	13.11	sw.	16.4	2,450	2,130	
						2,250	786.0	17.9	.....	68	13.95	sw.	16.5	2,205	1,850	9/10 St.Cu., nnw.
9:32	974.4	20.1	82	ne.	4.9	2,042	805.3	19.8	−0.58	62	14.32	sw.	16.7	2,001	1,600	
						2,000	809.0	19.6	.....	65	14.83	sw.	15.4	1,960	1,550	
9:38	974.4	19.8	81	ne.	4.9	1,886	820.0	18.9	0.85	72	15.72	sw.	12.0	1,848	1,410	2/10 A.Cu., wsw.; 3/10 St.Cu., wsw.
						1,750	832.5	20.1	.....	70	16.47	ssw.	11.6	1,715	1,250	
						1,500	856.7	22.2	.....	65	17.40	ssw.	10.8	1,470	940	
10:20	974.5	21.8	74	e.	5.8	1,426	865.0	22.8	−0.90	64	17.77	s.	10.6	1,398	880	
						1,250	881.8	21.2	.....	72	18.13	se.	10.2	1,225	750	
						1,000	908.0	19.0	.....	83	18.24	se.	9.5	980	510	
10:54	974.1	22.6	72	e.	6.3	792	930.5	17.1	1.44	93	18.14	e.	9.0	777	0	
						750	934.8	17.7	.....	91	18.43	e.	8.7	735	0	
						500	962.3	21.3	.....	80	20.26	e.	6.6	490	0	
11:02	974.0	22.8	75	e.	5.8	396	974.0	22.8	.....	75	20.82	e.	5.8	388	.....	2/10 A.Cu., wsw.; 1/10 St.Cu., wsw.

August 13, 1916.

A. M.																
7:22	976.7	13.0	73	ne.	7.2	396	976.7	13.0	.....	73	10.94	ne.	7.2	388	.....	7/10 Ci., wnw.; 3/10 St. Cu., w.
						500	964.1	12.1	.....	75	10.59	ne.	10.0	490	0	
7:25	976.7	13.2	74	ne.	6.3	723	939.3	10.3	0.83	78	9.77	ene.	16.1	709	0	
						750	936.0	10.8	.....	77	9.97	ene.	15.8	735	0	
7:40	976.7	13.5	70	ne.	7.6	1,000	908.6	15.1	.....	65	11.15	ene.	12.8	980	0	
						1,106	897.4	16.9	−1.72	60	11.55	ene.	11.5	1,084	0	
						1,250	882.1	16.1	.....	59	10.80	ene.	10.8	1,225	100	
						1,500	856.5	14.6	.....	58	9.64	e.	9.6	1,470	660	6/10 Ci.St., wnw.; 4/10 St.Cu., w.
						1,750	831.7	13.1	.....	57	8.60	e.	8.3	1,715	900	
8:43	976.5	14.3	68	e.	5.4	1,870	820.0	12.4	0.59	57	8.21	e.	7.7	1,833	950	3/10 Ci.St., wnw.; 6/10 St.Cu., w.
						2,000	807.3	13.5	.....	54	8.35	ene.	6.5	1,960	1,000	
9:02	976.4	14.6	69	ene.	7.2	2,245	784.3	15.7	−0.88	48	8.56	ne.	4.3	2,200	.....	
9:08	976.4	14.6	69	ene.	6.3	2,505	760.3	13.9	0.58	38	6.03	ne.	3.7	2,455	.....	
						2,250	783.6	15.1	.....	40	6.86	ne.	3.8	2,205	.....	
9:11	976.5	14.8	69	ene.	6.3	2,206	787.5	15.3	−1.36	41	7.13	ne.	3.8	2,162	.....	
						2,000	807.3	12.5	.....	56	8.11	ene.	5.6	1,960	.....	
9:34	976.6	16.3	65	e.	4.9	1,919	815.1	11.4	0.57	62	8.36	e.	6.3	1,881	1,140	9/10 A.Cu., w.
						1,750	831.7	12.4	.....	62	8.93	e.	7.0	1,715	970	
						1,500	856.5	13.8	.....	61	9.63	e.	8.1	1,470	710	
						1,250	882.1	15.2	.....	61	10.53	e.	9.2	1,225	390	
9:54	976.7	17.0	62	ene.	4.5	1,176	890.5	15.6	−1.37	61	10.81	e.	9.5	1,153	310	
						1,000	908.6	13.2	.....	68	10.32	ene.	8.0	980	210	
10:02	976.7	16.8	64	e.	4.5	885	921.7	11.6	1.00	73	9.97	ene.	7.1	868	140	
						750	936.0	13.0	.....	71	10.64	ene.	6.2	735	60	
						500	964.1	15.5	.....	67	11.80	e.	4.9	490	0	
10:14	976.7	16.5	66	e.	4.0	396	976.7	16.5	.....	66	12.39	e.	4.0	388	.....	8/10 A.Cu., w.

August 16, 1916.

A. M.																
8:21	966.9	22.2	98	sse.	3.6	396	966.9	22.2	.....	98	26.23	sse.	3.6	388	.....	10/10 St., s.; light fog. Altitude of St. base about 550 m.
						500	955.2	21.1	.....	99	24.78	sse.	6.4	490	0	
8:26	966.9	22.2	97	sse.	4.5	611	943.2	20.0	1.02	100	23.38	s.	9.3	599	0	
						750	929.0	24.6	.....	61	18.87	s.	11.8	735	0	
8:29	966.9	22.3	96	sse.	4.5	759	927.4	24.9	−3.31	58	18.27	s.	12.0	744	0	
						1,000	902.7	22.9	.....	62	17.32	s.	13.2	980	0	
8:43	966.9	22.6	95	s.	4.0	1,210	880.8	21.2	0.82	65	16.37	s.	14.3	1,186	0	
						1,250	876.8	21.0	.....	65	16.17	s.	14.0	1,225	20	
						1,500	851.8	19.6	.....	64	14.60	s.	12.1	1,470	120	
8:57	966.9	22.8	94	s.	4.9	1,632	838.8	18.9	0.55	63	13.76	s.	11.1	1,600	170	
						1,750	827.5	18.2	.....	58	12.12	s.	11.0	1,715	240	Light fog ended 9:02 a. m.
						2,000	803.5	16.8	.....	48	9.18	s.	10.7	1,960	340	
						2,250	780.2	15.5	.....	39	6.87	s.	10.4	2,205	430	
9:34	966.9	24.6	86	s.	3.6	2,460	761.0	14.3	0.56	31	5.05	s.	10.1	2,411	380	8/10 St., s.
						2,500	757.2	13.9	.....	31	4.92	s.	10.0	2,450	370	
						2,750	735.0	11.6	.....	32	4.37	s.	9.2	2,694	520	
						3,000	713.2	9.4	.....	34	4.01	sse.	8.4	2,939	660	
10:57	966.5	25.6	81	se.	3.6	3,048	709.3	9.0	0.90	34	3.90	sse.	8.3	2,986	680	8/10 St.Cu., s.

TABLE 6.—*Free-air data from kite flights at Drexel Aerological Station, August, 1916*—Continued.

August 16, 1916—Continued.

Surface.						At different heights above sea.										Remarks.
				Wind.						Humidity.		Wind.		Potential.		
Time.	Pressure.	Temperature.	Relative humidity.	Dir.	Vel.	Altitude.	Pressure.	Temperature.	$\frac{\Delta t}{100\ m.}$	Rel.	Vap. pres.	Dir.	Vel.	Gravity.	Electric.	
A. M.	*mb.*	°*C.*	%		*m. p. s.*	*m.*	*mb.*	°*C.*		%	*mb.*		*m. p. s.*	10^5 *ergs.*	*volts.*	
						3,250	692.0	7.0	.....	43	4.31	sse.	8.2	3,184	780	
						3,500	671.2	4.4	.....	54	4.52	sse.	8.0	3,429	680	
						3,750	651.1	1.9	.....	64	4.49	sse.	7.9	3,673	.....	
11:19	966.3	26.6	79	s.	3.6	3,840	644.2	1.0	1.01	68	4.47	sse.	7.8	3,761	.....	3/10 A.Cu., s.: 5/10 St., s.
						3,750	651.1	1.9	.....	65	4.56	sse.	8.2	3,673	.....	
						3,500	671.2	4.4	.....	56	4.69	sse.	9.2	3,429	580	
						3,250	692.0	7.0	.....	47	4.71	sse.	10.2	3,184	630	
11:47	966.0	27.7	75	s.	3.1	3,051	709.3	9.0	0.89	40	4.59	sse.	11.0	2,989	660	
						3,000	713.2	9.5	.....	39	4.63	sse.	11.4	2,939	640	
						2,750	735.0	11.7	.....	36	4.95	sse.	13.3	2,694	530	
						2,500	757.1	13.9	.....	34	5.40	s.	15.2	2,450	420	
P. M.																
12:05	965.9	28.4	69	s.	3.1	2,299	775.3	15.7	0.72	32	5.71	s.	16.7	2,253	330	4/10 A.Cu., s.: 4/10 St., s.
						2,250	779.3	16.1	.....	34	6.22	s.	16.7	2,205	310	
						2,000	802.1	17.9	.....	43	8.82	s.	16.5	1,960	250	
						1,750	826.1	19.7	.....	52	11.93	s.	16.3	1,715	190	
12:22	965.8	28.3	71	s.	2.7	1,524	848.8	21.3	−0.21	60	15.20	s.	16.2	1,494	140	
						1,500	851.0	21.3	.....	61	15.45	s.	15.7	1,470	130	
						1,250	875.5	20.7	.....	77	18.80	s.	10.8	1,225	80	
12:29	965.7	28.0	72	s.	2.7	1,085	892.7	20.4	0.88	87	20.85	s.	7.5	1,064	50	
						1,000	901.1	21.1	.....	86	21.53	s.	7.9	980	30	
						750	927.2	23.3	.....	84	24.03	sse.	9.2	735	0	St. base about 700 m.
12:45	965.6	28.0	74	s.	4.5	720	930.9	23.6	1.30	84	24.47	sse.	9.4	706	0	
						500	953.8	26.5	.....	77	26.67	sse.	5.7	490	0	
12:52	965.6	27.8	74	sse.	4.0	396	965.6	27.8	.....	74	27.65	sse.	4.0	388	.....	9/10 St., s.

August 17, 1916.

A. M.																
7:52	966.2	25.2	77	s.	4.5	396	966.2	25.2	.....	77	24.69	s.	4.5	388	.....	4/10 Ci., nw.; 2/10 Ci.St., nw.
						500	955.2	23.6	.....	79	23.01	ssw.	6.2	490	0	
7:54	966.2	25.2	77	s.	5.8	577	946.5	22.7	1.38	80	22.07	ssw.	7.2	566	0	
						750	923.5	23.5	.....	71	20.56	ssw.	9.8	735	0	
						1,000	903.0	24.7	.....	57	17.74	sw.	13.6	980	0	
8:11	966.2	25.7	75	s.	6.3	1,161	885.6	25.4	−0.46	48	15.58	sw.	16.0	1,138	0	
						1,250	877.0	24.9	.....	48	15.12	sw.	15.3	1,225	0	
						1,500	852.0	23.3	.....	49	14.02	sw.	13.3	1,470	0	
8:24	966.2	26.4	81	s.	6.7	1,537	848.4	23.1	0.61	49	13.85	sw.	13.0	1,506	0	
						1,750	827.5	21.0	.....	55	13.68	sw.	14.4	1,715	0	
						2,000	803.8	18.6	.....	62	13.29	sw.	16.1	1,960	0	
						2,250	780.5	16.1	.....	68	12.44	sw.	17.8	2,205	0	
8:45	966.2	26.6	70	ssw.	7.6	2,265	779.7	16.0	0.98	68	12.36	sw.	17.9	2,229	0	4/10 Ci., nw.
						2,500	757.8	14.1	.....	68	10.94	sw.	17.6	2,450	110	
						2,750	736.0	12.0	.....	68	9.54	sw.	17.2	2,694	180	
						3,000	714.2	9.9	.....	68	8.30	sw.	16.9	2,939	260	
9:13	966.3	27.3	66	ssw.	9.4	3,088	707.3	9.2	0.83	68	7.92	sw.	16.8	3,025	260	
						3,250	693.4	8.1	.....	65	7.02	sw.	17.1	3,184	390	
						3,500	673.0	6.5	.....	61	5.90	sw.	17.5	3,429	530	
						3,750	653.1	4.9	.....	57	4.94	sw.	17.9	3,673	660	
9:38	966.4	27.9	64	ssw.	8.5	3,812	648.1	4.5	0.65	56	4.72	sw.	18.0	3,734	705	
						4,000	633.8	2.8	.....	57	4.26	sw.	17.6	3,918	800	
						4,250	614.5	0.5	.....	59	3.73	sw.	17.0	4,162	920	
10:33	966.5	29.2	64	ssw.	7.6	4,366	605.4	−0.5	0.84	60	3.52	sw.	16.7	4,276	.....	Few Ci., nw.
						4,250	614.5	0.4	.....	60	3.77	sw.	16.6	4,162	920	
						4,000	633.8	2.4	.....	61	4.43	sw.	16.4	3,918	780	
						3,750	653.2	4.3	.....	62	5.15	sw.	16.3	3,673	640	
						3,500	673.5	6.2	.....	63	5.97	ssw.	16.2	3,429	490	
						3,250	694.2	8.2	.....	64	6.96	ssw.	16.0	3,184	350	
10:59	966.5	29.6	63	ssw.	7.6	3,095	707.3	9.4	0.74	64	7.55	ssw.	15.9	3,032	260	
						3,000	715.6	10.1	.....	65	8.03	ssw.	16.0	2,939	240	
						2,750	737.2	12.0	.....	68	9.54	ssw.	16.4	2,694	180	
						2,500	759.4	13.8	.....	72	11.36	ssw.	16.7	2,450	120	
11:11	966.4	30.0	61	ssw.	7.2	2,325	774.9	15.1	0.99	75	12.87	ssw.	16.9	2,278	90	
						2,250	782.0	15.8	.....	73	13.10	ssw.	16.8	2,205	60	
						2,000	805.0	18.3	.....	65	13.67	ssw.	16.3	1,960	0	
						1,750	827.9	20.8	.....	57	14.00	ssw.	15.8	1,715	0	
11:24	966.4	30.4	61	ssw.	6.7	1,701	833.4	21.3	0.93	56	14.18	ssw.	15.7	1,667	0	
						1,500	853.0	23.2	.....	53	15.07	ssw.	17.6	1,470	0	
						1,250	877.8	25.5	.....	49	15.99	ssw.	19.9	1,225	0	
11:43	966.3	30.5	60	ssw.	7.6	1,183	883.9	25.1	−0.79	48	16.23	ssw.	20.5	1,160	0	
						1,000	903.0	24.7	.....	52	16.18	ssw.	18.1	980	0	
11:46	966.3	30.6	59	ssw.	7.6	981	904.5	24.5	0.66	52	15.99	ssw.	17.8	962	0	
11:53	966.2	31.0	58	s.	7.6	798	923.6	25.7	1.47	60	22.79	s.	10.5	782	0	
						750	923.5	26.4	.....	68	23.41	s.	10.2	735	0	
						500	955.2	30.1	.....	62	26.47	s.	8.6	490	0	
P. M.																
12:01	966.2	31.6	59	s.	8.0	396	966.2	31.6	.....	59	27.44	s.	8.0	388	.....	Few Ci., nw.

TABLE 6.—*Free-air data from kite flights at Drexel Aerological Station, August, 1916*—Continued.

August 18, 1916, series (No. 1).

Surface.						At different heights above sea.											Remarks.
Time.	Pressure.	Temperature.	Relative humidity.	Wind.		Altitude.	Pressure.	Temperature.	$\frac{\Delta t}{100\ m.}$	Humidity.		Wind.		Potential.			
				Dir.	Vel.					Rel.	Vap. pres.	Dir.	Vel.	Gravity.	Electric.		
A. M.	*mb.*	*°C.*	%		*m. p. s.*	*m.*	*mb.*	*°C.*		%	*mb.*		*m. p. s.*	*10^5 ergs.*	*volts.*		
8:01	969.2	26.4	62	SSW.	8.5	396	969.2	26.4	.....	62	21.35	SSW.	8.5	388	.....		Cloudless.
						500	958.0	25.7	.....	60	19.82	SSW.	13.2	490	0		
8:02	969.2	26.6	62	SSW.	8.5	618	945.2	24.8	0.72	58	18.16	SW.	18.6	606	0		
						750	931.5	25.5	.....	54	17.63	SW.	20.6	735	0		
8:10	969.3	27.0	62	SW.	6.7	1,000	905.0	26.7	−0.50	46	16.12	SW.	24.5	980	0		
						1,250	880.0	24.7	.....	44	13.69	SW.	20.4	1,225	0		
						1,500	855.0	22.7	.....	41	11.31	SW.	16.4	1,470	0		
8:28	969.4	27.5	60	SW.	6.7	1,612	844.1	21.8	0.80	40	10.45	SW.	14.6	1,580	0		
						1,750	831.0	20.3	.....	44	10.48	SW.	14.2	1,715	70		
						2,000	807.0	17.6	.....	50	10.06	SSW.	13.6	1,960	200		
8:45	969.5	27.8	60	SW.	8.9	2,113	796.6	16.4	1.08	53	9.88	SSW.	13.3	2,071	260		
						2,250	782.9	15.3	.....	53	9.21	SSW.	13.7	2,205	340		
						2,500	759.5	13.2	.....	53	8.04	SSW.	14.4	2,450	460		
						2,750	736.8	11.1	.....	52	6.87	SSW.	15.0	2,694	580		
						3,000	714.6	9.0	.....	52	5.97	SSW.	15.7	2,939	700		
9:22	969.7	28.4	57	SSW.	6.7	3,030	714.4	8.8	0.83	52	5.89	SSW.	15.8	2,969	730		
						3,250	698.0	7.4	.....	52	5.36	SSW.	16.3	3,184	810		
						3,500	674.0	5.8	.....	51	4.70	SSW.	16.8	3,429	.....		
						3,750	655.0	4.1	.....	51	4.18	SSW.	17.3	3,673	.....		
10:42	969.9	30.5	55	SSW.	6.3	3,847	647.6	3.5	0.68	51	4.00	SSW.	17.5	3,768	.....		
						3,750	655.0	4.2	.....	51	4.21	SSW.	17.3	3,673	.....		
						3,500	674.0	6.0	.....	51	4.77	SSW.	16.9	3,429	.....		
						3,250	698.0	7.8	.....	51	5.40	SSW.	16.5	3,184	840		
						3,000	714.6	9.5	.....	50	5.94	SSW.	16.2	2,939	780		
						2,750	736.8	11.3	.....	50	6.70	SSW.	15.8	2,694	720		
						2,500	759.5	13.1	.....	50	7.54	SSW.	15.4	2,450	660		
11:10	969.8	30.6	53	SSW.	8.0	2,272	782.1	14.7	0.89	50	8.36	SSW.	15.0	2,227	610		
						2,250	782.9	14.9	.....	50	8.47	SSW.	14.9	2,205	600		
						2,000	807.0	17.1	.....	49	9.56	SSW.	14.3	1,960	360		
						1,750	831.0	19.3	.....	49	10.97	SSW.	13.7	1,715	130		
11:24	969.6	31.2	51	SSW.	8.0	1,651	840.8	20.2	1.04	48	11.37	SSW.	13.5	1,618	30		
						1,500	855.0	21.8	.....	47	12.28	SSW.	14.2	1,470	0		
11:39	969.4	31.1	52	SSW.	8.9	1,275	877.7	24.1	0.53	46	13.81	SW.	15.3	1,250	0		
						1,250	880.0	24.2	.....	47	14.19	SW.	15.0	1,225	0		
						1,000	905.0	25.5	.....	52	16.97	SSW.	11.8	980	0		
11:51	969.3	31.3	51	SSW.	8.0	787	927.6	26.7	1.30	57	19.97	SSW.	9.1	772	0		
						750	931.5	27.2	.....	56	20.20	SSW.	8.9	735	0		
						500	958.0	30.4	.....	52	22.58	SSW.	7.7	490	0		
P. M.																	
12:03	969.2	31.8	50	SSW.	7.2	396	969.2	31.8	.....	50	23.52	SSW.	7.2	388	.....		Cloudless.

August 18, 1916, series (No. 2).

P. M.																	
12:43	969.0	32.3	48	SSW.	8.0	396	969.0	32.3	.....	48	23.22	SSW.	8.0	388	.....		Cloudless.
						500	957.7	30.8	.....	49	21.77	SSW.	8.9	490	0		
						750	931.2	27.1	.....	52	18.65	S.	11.1	735	0		
12:52	968.9	32.3	46	SSW.	7.2	768	929.4	26.8	1.48	52	18.32	S.	11.3	753	0		
						1,000	905.0	24.4	.....	57	17.42	S.	12.0	980	0		
1:03	968.9	32.4	47	SSW.	8.9	1,121	892.8	23.2	1.02	59	16.78	S.	12.3	1,099	0		
						1,250	879.8	22.2	.....	57	15.26	S.	12.8	1,225	40		
						1,500	854.0	20.4	.....	52	12.46	SSW.	13.7	1,470	130		
1:16	968.9	32.6	46	S.	8.9	1,632	841.8	19.4	0.74	50	11.26	SSW.	14.2	1,600	170		
						1,750	830.1	18.6	.....	49	10.50	SSW.	14.6	1,715	290		
						2,000	807.0	16.8	.....	47	8.99	SSW.	15.5	1,960	520		
						2,250	784.0	15.1	.....	46	7.89	SSW.	16.4	2,205	760		
						2,500	761.0	13.3	.....	44	6.72	SSW.	17.3	2,450	870		
1:42	968.9	32.8	45	SSW.	9.8	2,734	739.5	11.7	0.70	42	5.78	SSW.	18.3	2,679	1,075		Few Cu.,ssw.; alt. of Cu. base about 2,750 m.
						2,750	738.5	11.6	.....	38	5.19	SSW.	18.1	2,694	1,090		
						3,000	716.3	10.1	.....	35	4.33	SSW.	15.1	2,939	1,220		
2:02	968.9	32.8	43	SSW.	10.3	3,240	695.8	8.7	0.64	28	3.15	SSW.	12.3	3,174	1,350		
						3,000	716.3	10.4	.....	31	3.91	SSW.	14.2	2,939	1,220		
						2,750	738.5	12.1	.....	34	4.80	SSW.	16.2	2,694	1,030		
						2,500	761.0	13.8	.....	38	6.00	SSW.	18.2	2,450	830		
2:26	968.6	33.2	43	SSW.	9.4	2,340	774.6	14.9	0.07	40	6.78	SSW.	19.5	2,293	710		
						2,250	784.0	15.0	.....	48	8.18	SSW.	18.3	2,205	640		
						2,000	807.0	15.1	.....	69	11.84	S.	14.9	1,960	380		
2:35	968.5	33.0	44	S.	8.5	1,922	813.6	15.2	1.10	76	13.13	S.	13.9	1,884	300		
						1,750	830.1	17.1	.....	75	14.62	S.	12.7	1,715	120		
2:41	968.4	32.8	44	S.	9.4	1,632	841.8	18.4	1.22	75	15.87	S.	11.9	1,600	0		
						1,500	854.0	20.0	.....	69	16.13	S.	12.5	1,470	0		
2:57	968.2	33.2	43	S.	8.0	1,272	877.3	22.8	1.07	60	16.66	S.	13.6	1,247	0		1/10 Cu.,ssw.
						1,250	879.8	23.0	.....	59	16.58	S.	13.7	1,225	0		
						1,000	904.8	25.7	.....	53	17.51	S.	14.5	980	0		
3:07	968.2	33.2	43	S.	11.6	797	925.9	27.9	1.37	48	18.04	S.	15.2	781	0		
						750	730.3	28.5	.....	47	18.29	S.	14.5	735	0		
						500	956.5	32.0	.....	44	20.93	S.	10.9	490	0		
3:13	968.1	33.4	43	S.	9.4	396	968.1	33.4	.....	43	22.13	S.	9.4	388	.....		2/10 Cu.,ssw.

TABLE 6.—*Free-air data from kite flights at Drexel Aerological Station, August, 1916*—Continued.

August 18, 1916, series (No. 3).

Surface.						At different heights above sea.										Remarks.
Time.	Pressure.	Temperature.	Relative humidity.	Wind.		Altitude.	Pressure.	Temperature.	$\frac{\Delta t}{100\ m.}$	Humidity.		Wind.		Potential.		
				Dir.	Vel.					Rel.	Vap. pres.	Dir.	Vel.	Gravity.	Electric.	
P. M.	*mb.*	°*C.*	%		*m. p. s.*	*m.*	*mb.*	°*C.*		%	*mb.*		*m. p. s.*	10^5 *ergs.*	*volts.*	
3:54	967.9	33.1	43	s.	8.9	396	967.9	33.1	.....	43	21.76	s.	8.9	388	.....	2/10 Cu.,ssw.
						500	956.8	32.0	.....	44	20.93	s.	11.0	490	0	
						750	930.7	29.2	.....	47	19.05	s.	15.9	735	0	
4:02	967.9	32.9	43	s.	8.9	817	923.5	28.5	1.09	48	18.68	s.	17.2	801	0	
						1,000	905.0	26.5	.....	53	18.35	s.	16.4	980	0	
						1,250	879.8	23.7	.....	60	17.59	s.	15.3	1,225	0	
4:15	967.9	33.1	43	s.	8.0	1,327	871.7	22.9	1.10	62	17.32	s.	15.0	1,301	0	
						1,500	854.8	21.0	.....	67	16.66	s.	15.2	1,470	0	
						1,750	835.0	18.3	.....	74	15.56	s.	15.5	1,715	110	
						2,000	806.0	15.6	.....	80	14.18	s.	15.8	1,960	320	
4:39	967.9	32.8	45	s.	9.4	2,164	790.5	13.8	1.09	85	13.41	s.	16.0	2,121	450	
						2,250	782.2	13.2	.....	84	12.74	s.	17.3	2,205	530	Cu. base about 2,300 m.
						2,500	754.3	11.6	.....	83	11.34	ssw.	21.0	2,450	780	
4:46	967.9	32.8	43	s.	9.8	2,568	753.6	11.1	0.67	82	10.83	ssw.	22.0	2,516	850	
4:48	967.9	32.8	43	s.	9.4	2,709	740.9	12.4	−0.92	38	5.47	ssw.	24.0	2,654	1,000	
						2,750	737.4	12.1	.....	38	5.37	ssw.	23.9	2,694	1,040	
						3,000	705.8	10.4	.....	37	4.67	ssw.	23.1	2,939	1,290	
						3,250	694.8	8.6	.....	35	3.91	ssw.	22.4	3,184	1,540	
						3,500	673.2	6.9	.....	34	3.38	ssw.	21.6	3,429	.....	
5:13	967.7	32.7	44	s.	8.5	3,527	671.4	6.7	0.72	34	3.34	ssw.	21.5	3,455	.....	Few Cu.,ssw.
						3,500	673.2	6.9	.....	34	3.38	ssw.	21.5	3,429	.....	
						3,250	694.8	8.8	.....	30	3.40	ssw.	21.6	3,184	1,520	
						3,000	705.8	10.6	.....	26	3.32	ssw.	21.6	2,939	1,280	
5:46	967.4	32.4	45	s.	8.0	2,778	734.6	12.2	−0.03	22	3.13	ssw.	21.7	2,722	1,070	
						2,750	737.4	12.2	.....	23	3.27	ssw.	21.6	2,694	1,040	
						2,500	754.3	12.1	.....	37	5.22	s.	20.8	2,450	880	
5:53	967.3	32.2	46	s.	6.7	2,474	761.5	12.1	0.85	38	5.37	s.	20.7	2,424	840	
						2,250	782.2	14.0	.....	61	9.75	s.	21.1	2,205	680	
6:04	967.2	31.8	50	s.	6.3	2,145	792.1	14.9	1.06	72	12.20	s.	21.3	2,102	615	
						2,000	805.5	16.4	.....	69	12.87	s.	21.0	1,960	440	
						1,750	834.2	19.1	.....	63	13.93	s.	20.4	1,715	210	
6:22	967.3	31.0	55	s.	4.5	1,543	849.7	21.3	1.09	60	15.20	s.	19.9	1,512	0	
						1,500	853.8	21.8	.....	59	15.41	s.	19.9	1,470	0	
						1,250	878.2	24.5	.....	53	16.30	s.	19.9	1,225	0	
6:36	967.4	30.7	57	s.	4.5	1,168	887.0	25.4	0.62	51	16.55	s.	19.9	1,145	0	
						1,000	904.0	26.4	.....	52	17.90	s.	16.6	980	0	
						750	929.7	28.0	.....	54	20.42	s.	11.8	735	0	
						500	955.8	29.6	.....	56	23.23	s.	6.9	490	0	
6:50	967.5	30.2	57	s.	4.9	396	967.5	30.2	.....	57	24.47	s.	4.9	388	.....	2/10 Cu.,sw.

August 18, 1916, series (No. 4).

P. M.																
7:29	967.7	28.6	64	sse.	4.0	396	967.7	28.6	.....	64	25.06	sse.	4.0	388	.....	2/10 Cu.,sw.
						500	956.1	28.7	.....	60	23.63	sse.	8.8	490	0	
						750	930.0	29.1	.....	49	19.75	s.	20.2	735	0	
7:36	967.8	28.5	65	sse.	4.0	768	928.2	29.1	−0.13	48	19.34	s.	21.0	753	0	
						1,000	904.0	26.9	.....	48	17.02	s.	19.6	980	0	
7:46	967.8	28.1	67	sse.	4.0	1,091	895.0	26.1	0.93	48	16.23	s.	19.1	1,070	0	
						1,250	879.0	24.5	.....	51	15.68	s.	19.9	1,225	0	
8:00	967.9	27.7	70	sse.	4.0	1,503	854.0	22.0	1.00	55	14.54	s.	21.2	1,473	0	
						1,750	829.5	19.5	.....	59	13.38	s.	20.8	1,715	0	
8:17	968.0	27.6	70	sse.	3.1	1,954	810.7	17.4	1.02	62	12.32	s.	20.4	1,915	0	
						2,000	805.4	16.9	.....	64	12.32	s.	20.6	1,960	60	
						2,250	782.7	14.3	.....	73	11.90	ssw.	21.4	2,205	400	
8:43	968.1	27.1	72	sse.	4.0	2,426	766.9	12.4	1.06	79	11.38	ssw.	22.0	2,378	640	
						2,500	760.0	12.5	.....	71	10.29	ssw.	21.9	2,450	740	
9:02	968.2	27.2	70	sse.	4.5	2,707	741.5	12.9	−0.18	47	6.99	ssw.	21.5	2,652	910	
						2,750	737.8	12.7	.....	47	6.90	ssw.	21.1	2,694	940	
9:27	968.5	27.1	68	sse.	4.5	2,980	717.9	10.5	0.78	45	5.72	ssw.	18.0	2,920	1,105	
						2,750	737.8	12.1	.....	54	7.62	ssw.	15.0	2,694	860	
9:46	968.7	27.5	63	s.	4.9	2,661	746.2	12.7	−0.33	58	8.52	ssw.	13.8	2,607	870	
9:47	968.7	27.5	63	s.	4.9	2,571	754.2	12.4	0.89	60	8.64	ssw.	16.3	2,519	680	
						2,500	760.0	13.0	.....	60	8.99	ssw.	16.7	2,450	610	
						2,250	783.2	15.2	.....	60	10.36	ssw.	18.2	2,205	350	
						2,000	806.5	17.5	.....	59	11.80	ssw.	19.8	1,960	100	
10:10	968.9	27.6	60	sse.	5.8	1,908	815.6	18.3	0.96	59	12.41	ssw.	20.4	1,870	0	
						1,750	830.2	19.8	.....	57	13.17	ssw.	21.0	1,715	0	
						1,500	854.8	22.2	.....	54	14.46	ssw.	21.9	1,470	0	
10:25	968.9	27.6	58	s.	5.8	1,458	859.1	22.6	0.78	53	14.54	ssw.	22.0	1,429	0	3/10 A.Cu.,sw.
						1,250	879.3	24.2	.....	53	16.01	ssw.	22.0	1,225	0	
						1,000	904.8	26.2	.....	53	18.03	s.	22.0	980	0	
10:43	968.9	27.8	56	s.	5.8	945	910.7	26.6	0.65	53	18.46	s.	22.0	926	0	
10:48	968.9	27.7	57	s.	6.7	760	930.0	27.8	0.00	52	19.43	s.	21.6	745	0	
						750	931.0	27.8	.....	52	19.43	s.	21.2	735	0	
						500	957.5	27.8	.....	54	20.18	s.	11.6	490	0	
11:02	968.9	27.8	55	s.	7.6	396	968.9	27.8	.....	55	20.55	s.	7.6	388	.....	7/10 A.Cu.,sw.

TABLE 6.—*Free-air data from kite flights at Drexel Aerological Station, August, 1916*—Continued.

August 18-19, 1916, series (No. 5).

Surface.						At different heights above sea.										
Time.	Pressure.	Temperature.	Relative humidity.	Wind.		Altitude.	Pressure.	Temperature.	Δt / 100 m.	Humidity.		Wind.		Potential.		Remarks.
				Dir.	Vel.					Rel.	Vap. pres.	Dir.	Vel.	Gravity.	Electric.	
P. M.	*mb.*	°C.	%		*m. p. s.*	*m.*	*mb.*	°C.		%	*mb.*		*m. p. s.*	10^5 *ergs.*	*volts.*	
11:43	969.1	27.5	56	s.	6.7	396	969.1	27.5	.....	56	20.56	s.	6.7	388	.....	7/10 Ci.Cu., sw.
						500	958.0	27.6	.....	54	19.58	s.	9.6	490	0	
						750	931.5	28.0	.....	48	18.15	ssw.	16.4	735	0	
A. M.																
12:04	969.2	27.4	57	s.	7.6	908	914.8	28.2	−0.14	44	16.83	ssw.	20.8	890	0	
						1,000	905.0	27.3	.....	45	16.34	ssw.	21.0	980	40	
						1,250	879.5	24.9	.....	48	15.12	ssw.	21.6	1,225	140	
12:16	969.1	27.6	54	s.	6.7	1,317	873.3	24.3	0.94	49	14.89	ssw.	21.7	1,291	170	
						1,500	854.2	22.6	.....	49	13.44	ssw.	20.6	1,470	455	
12:33	969.0	27.4	55	s.	8.0	1,748	831.1	20.4	0.90	50	11.98	ssw.	19.2	1,713	835	
						2,000	807.0	18.2	.....	53	11.08	ssw.	18.5	1,960	1,000	
						2,250	784.1	16.1	.....	55	10.06	ssw.	17.9	2,205	1,160	
12:52	968.9	27.2	55	s.	7.2	2,373	772.3	15.0	0.86	56	9.55	ssw.	17.6	2,325	1,240	2/10 Ci.Cu., sw.
						2,500	761.5	14.0	.....	60	9.59	ssw.	16.3	2,450	1,300	Lightning in north.
						2,750	739.0	12.1	.....	69	9.74	ssw.	13.6	2,694	1,430	
1:34	968.9	26.9	55	s.	7.6	2,877	727.7	11.1	0.88	73	9.64	ssw.	12.3	2,819	.....	Few Ci.Cu., sw.
						2,750	739.0	12.4	.....	69	9.94	ssw.	13.1	2,694	1,420	
						2,500	761.5	14.9	.....	61	10.33	ssw.	14.6	2,450	1,230	
2:00	968.9	26.4	56	s.	7.6	2,359	773.9	16.3	0.72	57	10.56	ssw.	15.5	2,312	1,120	
						2,250	784.1	17.1	.....	55	10.72	ssw.	16.0	2,205	1,040	
						2,000	807.0	18.9	.....	52	11.36	ssw.	17.3	1,960	850	
2:36	968.9	26.2	58	s.	8.9	1,902	816.2	19.6	0.85	50	11.40	ssw.	17.8	1,864	780	
						1,750	830.0	20.9	.....	50	12.36	ssw.	19.0	1,715	640	
						1,500	854.2	23.0	.....	49	13.77	ssw.	21.0	1,470	430	
						1,250	879.5	25.1	.....	48	15.30	ssw.	23.1	1,225	220	
2:48	968.9	25.8	59	ssw.	6.7	1,229	881.9	25.3	0.90	48	15.48	ssw.	23.3	1,205	210	
						1,000	905.0	27.4	.....	44	16.06	ssw.	26.5	980	80	
3:05	968.9	25.6	60	ssw.	7.2	853	920.1	28.7	0.68	42	16.54	ssw.	28.6	836	0	
						750	931.5	28.0	.....	46	17.39	ssw.	23.5	735	0	
						500	958.0	26.3	.....	56	19.16	ssw.	11.0	490	0	
8:16	968.9	25.6	60	ssw.	5.8	396	968.9	25.6	.....	60	19.70	ssw.	5.8	388	.....	Few Ci.Cu., sw.

August 19, 1916, series (No. 6).

A. M.																
4:44	969.1	24.6	64	ssw.	7.6	396	969.1	24.6	.....	64	19.80	ssw.	7.6	388	.....	Few Ci., sw.
						500	958.0	25.4	.....	60	19.47	ssw.	11.7	490	0	
						750	926.3	27.3	.....	51	18.51	sw.	21.7	735	0	
4:53	969.2	24.8	62	ssw.	8.5	816	924.3	27.8	−0.76	49	18.31	sw.	24.3	800	0	
						1,000	905.5	26.5	.....	50	17.32	sw.	22.6	980	0	
						1,250	885.0	24.8	.....	52	16.28	sw.	20.4	1,225	60	
5:12	969.4	24.6	64	ssw.	8.5	1,433	861.9	23.6	1.01	53	15.44	sw.	18.7	1,405	170	
						1,500	855.0	23.1	.....	53	14.98	sw.	18.3	1,470	250	
						1,750	831.2	21.2	.....	53	13.35	sw.	16.6	1,715	540	
						2,000	807.8	19.2	.....	52	11.57	wsw.	15.0	1,960	820	
5:36	969.9	24.3	65	ssw.	6.7	2,097	798.5	18.4	0.78	52	11.00	wsw.	14.4	2,055	835	
						2,250	784.8	17.2	.....	53	10.40	wsw.	15.2	2,205	900	
						2,500	762.2	15.3	.....	55	9.56	sw.	16.4	2,450	980	
6:46	970.3	24.7	65	s.	6.7	2,598	753.2	14.6	0.76	56	9.31	sw.	16.9	2,546	1,060	Few Ci., sw.; few Ci.Cu., sw
						2,750	740.5	13.7	.....	51	8.00	sw.	17.3	2,694	1,180	
						3,000	718.5	12.2	.....	42	5.97	sw.	18.0	2,939	1,380	
7:10	970.3	24.6	66	s.	7.6	3,236	698.2	10.8	0.63	34	4.40	sw.	18.6	3,170	1,595	1/10 Ci.Cu., sw.
						3,000	718.5	12.4	.....	36	5.18	sw.	18.8	2,939	1,260	
						2,750	740.5	14.0	.....	39	6.23	sw.	19.0	2,694	1,020	
						2,500	762.2	15.7	.....	42	7.49	sw.	19.3	2,450	780	
7:31	970.4	25.4	63	sw.	6.3	2,473	764.5	15.9	0.78	42	7.59	sw.	19.3	2,423	750	Few Ci.Cu., sw.
						2,250	784.8	17.6	.....	48	9.66	sw.	17.1	2,205	540	
						2,000	807.8	19.6	.....	54	12.32	sw.	14.5	1,960	310	
7:44	970.5	25.8	63	sw.	7.6	1,946	813.3	20.0	0.72	55	12.86	sw.	14.0	1,907	260	
						1,750	831.2	21.4	.....	54	13.76	sw.	16.3	1,715	160	
						1,500	856.0	23.2	.....	52	14.79	sw.	19.1	1,470	10	
7:57	970.6	26.1	62	ssw.	6.3	1,477	858.5	23.4	0.51	52	14.97	sw.	19.4	1,448	0	
						1,250	886.2	24.6	.....	52	16.09	sw.	21.1	1,225	0	
						1,000	905.5	25.9	.....	51	17.04	wsw.	22.9	980	0	
8:17	970.6	26.9	60	ssw.	7.6	894	917.3	26.4	−0.16	51	17.56	wsw.	23.7	877	0	
						750	928.0	26.6	.....	53	18.46	sw.	19.2	735	0	
						500	959.5	27.0	.....	57	20.33	sw.	11.3	490	0	
8:25	970.6	27.2	59	ssw.	8.0	396	970.6	27.2	.....	59	21.29	ssw.	8.0	388	.....	Few Ci.St., sw.

August 19, 1916, series (No. 7).

A. M.																
9:53	971.2	29.8	52	sw.	8.9	396	971.2	29.8	.....	52	21.82	sw.	8.9	388	.....	Few Ci.St., sw.
						500	960.0	28.6	.....	54	21.14	sw.	9.9	490	0	
						750	733.6	25.9	.....	57	19.05	sw.	12.4	735	0	
10:01	971.3	30.0	52	sw.	8.5	810	927.0	25.2	1.11	58	18.59	sw.	13.0	794	0	
						1,000	907.0	24.8	.....	54	16.91	sw.	13.7	980	0	
						1,250	881.6	24.3	.....	50	15.20	sw.	14.6	1,225	0	
10:13	971.3	30.4	51	sw.	8.0	1,283	878.4	24.2	0.21	49	14.80	sw.	14.7	1,258	0	
						1,500	856.5	23.0	.....	45	12.64	sw.	14.7	1,470	0	
						1,750	832.5	21.6	.....	40	10.32	ssw.	14.8	1,715	200	
						2,000	809.0	20.3	.....	35	8.34	ssw.	14.8	1,960	350	
10:38	971.3	31.0	49	sw.	11.2	2,182	791.9	19.3	0.55	32	7.16	ssw.	14.8	2,138	810	
						2,250	786.0	18.8	.....	32	6.94	ssw.	15.2	2,205	880	
						2,500	763.0	16.8	.....	30	5.74	sw.	16.8	2,450	1,120	
						2,750	741.0	14.9	.....	29	4.91	sw.	18.3	2,694	1,350	
10:58	971.3	31.0	49	sw.	10.3	2,808	736.0	14.5	0.77	29	4.79	sw.	18.7	2,751	1,470	
						3,000	719.3	12.5	.....	32	4.64	sw.	18.8	2,939	1,580	
						3,250	698.3	9.9	.....	35	4.27	sw.	19.0	3,184	1,820	
11:18	971.4	31.6	47	sw.	10.3	3,323	692.5	9.1	1.03	36	4.16	sw.	19.1	3,255	1,880	
						3,250	698.3	9.8	.....	35	4.24	sw.	18.9	3,184	1,820	

TABLE 6.—*Free-air data from kite flights at Drexel Aerological Station, August, 1916*—Continued.

August 19, 1916, series (No. 7)—Continued.

Surface.						At different heights above sea.										
Time.	Pressure.	Temperature.	Relative humidity.	Wind.		Altitude.	Pressure.	Temperature.	Δt / 100 m.	Humidity.		Wind.		Potential.		Remarks.
				Dir.	Vel.					Rel.	Vap. pres.	Dir.	Vel.	Gravity.	Electric.	
A. M.	*mb.*	°*C.*	%		*m. p. s.*	*m.*	*mb.*	°*C.*		%	*mb.*		*m. p. s.*	10^5 *ergs.*	*volts.*	
						3,000	719.3	12.4	.....	32	4.61	sw.	18.1	2,939	1,650	
11:41	971.5	32.2	46	sw.	10.7	2,849	732.8	13.9	0.73	30	4.76	sw.	17.6	2,791	1,550	
						2,750	741.0	14.6	.....	30	4.99	sw.	17.0	2,694	1,460	
						2,500	763.0	16.4	.....	30	5.60	sw.	15.4	2,450	1,280	
						2,250	786.0	18.3	.....	29	6.10	ssw.	13.8	2,205	1,090	
11:57	971.6	31.7	45	sw.	12.1	2,148	795.2	19.0	0.74	29	6.37	ssw.	13.1	2,105	1,010	Few Cl.St., sw.
						2,000	809.0	20.1	.....	28	6.59	ssw.	13.3	1,960	860	
						1,750	832.5	22.0	.....	26	6.87	ssw.	13.8	1,715	630	
						1,500	856.5	23.8	.....	23	6.78	ssw.	14.2	1,470	400	
P. M.																
12:15	971.6	32.3	45	sw.	10.3	1,475	859.7	24.0	−0.96	23	6.86	ssw.	14.2	1,446	370	
12:17	971.6	32.4	45	sw.	10.3	1,287	878.4	22.2	1.00	44	11.78	ssw.	12.2	1,262	130	
						1,250	881.6	22.6	.....	45	12.34	ssw.	12.0	1,225	80	
						1,000	907.0	25.1	.....	51	16.25	ssw.	11.0	980	0	
12:30	971.6	32.4	45	ssw.	8.9	765	932.2	27.4	1.41	56	20.45	ssw.	10.0	750	0	
						750	733.6	27.6	.....	56	20.69	ssw.	10.0	735	0	
						500	960.0	31.1	.....	47	21.24	ssw.	9.9	490	0	
12:40	971.6	32.6	44	ssw.	9.8	396	971.6	32.6	.....	44	21.65	ssw.	9.8	388	.....	1/10 Cu., sw.

August 19, 1916, series (No. 8).

P. M.																
1:24	971.3	32.8	46	ssw.	10.3	396	971.3	32.8	.....	46	22.89	ssw.	10.3	388	.....	1/10 Cu., sw.
						500	980.0	31.3	.....	47	21.49	ssw.	10.9	490	0	
						750	933.5	27.9	.....	51	19.17	ssw.	12.4	735	0	
1:33	971.2	33.2	45	ssw.	12.1	783	930.1	27.4	1.40	51	18.62	ssw.	12.6	768	0	
						1,000	907.0	25.0	.....	56	17.74	ssw.	12.2	980	0	
1:47	971.1	33.4	42	s.	10.3	1,136	893.5	23.5	1.10	59	17.09	ssw.	12.0	1,114	0	
						1,250	881.5	22.6	.....	59	16.18	ssw.	12.6	1,225	80	
						1,500	856.0	20.7	.....	58	14.16	ssw.	14.0	1,470	440	
2:09	970.9	33.4	42	ssw.	8.0	1,658	841.0	19.5	0.77	58	13.15	ssw.	14.8	1,625	670	
						1,750	832.0	20.2	.....	51	12.08	ssw.	16.5	1,715	800	
2:11	970.8	33.4	42	ssw.	10.7	1,934	814.5	21.5	−0.72	38	9.75	ssw.	19.8	1,896	1,060	
						2,000	808.0	20.9	.....	37	9.15	ssw.	19.9	1,960	1,160	
						2,250	785.0	18.6	.....	34	7.29	ssw.	20.2	2,205	1,250	
						2,500	762.2	16.4	.....	31	5.78	sw.	20.5	2,450	1,350	
2:43	970.7	33.4	43	ssw.	9.4	2,622	751.6	15.3	0.90	30	5.21	sw.	20.7	2,569	1,390	
						2,750	740.4	14.1	.....	31	4.99	sw.	20.3	2,694	1,440	Few Cu., sw.
						3,000	718.9	11.7	.....	32	4.40	sw.	19.6	2,939	1,640	
3:18	970.6	33.8	41	ssw.	8.0	3,196	703.1	10.0	1.00	33	4.05	sw	19 0	3,121	.....	
						3,000	718.9	12.0	.....	32	4.49	sw.	19.3	2,939	1,620	
						2,750	740.4	14.6	.....	31	5.15	sw.	19.7	2,694	1,390	
3:38	970.6	34.0	38	sw.	9.8	2,644	750.0	15.7	0.82	30	5.35	sw.	19.9	2,591	1,205	
						2,500	762.2	16.9	.....	30	5.78	sw	19.3	2,450	1,150	
						2,250	785.0	18.9	.....	29	6.33	ssw	18.2	2,205	920	
4:05	970.6	33.8	42	ssw.	10.3	2,006	808.0	20.9	−1.55	28	6.92	ssw.	17.2	1,966	620	
4:06	970.6	33.8	42	ssw.	10.3	2,000	808.2	20.8	.....	28	6.88	ssw.	17.1	1,960	610	
						1,851	822.7	18.5	1.03	31	6.69	ssw.	14.7	1,814	510	
						1,750	832.0	19.5	.....	34	7.71	ssw	14.7	1,715	440	
						1,500	856.0	22.1	.....	42	11.17	ssw.	14.8	1,470	280	
						1,250	881.5	24.7	.....	51	15.57	ssw.	14.9	1,225	110	
4:29	970.6	33.8	42	ssw.	6.7	1,221	884.9	25.0	1.02	52	16.47	ssw.	14.9	1,197	0	
						1,000	907.0	27.3	.....	47	17.06	s.	13.8	980	0	
4:43	970.6	33.4	40	ssw.	6.7	830	924.8	29.0	1.06	44	17.63	s.	13.0	814	0	
						750	933.5	29.8	.....	43	18.04	s.	12.2	735	0	
						500	960.0	32.5	.....	41	20.06	ssw.	9.6	490	0	
4:51	970.6	33.6	40	ssw.	8.5	396	970.6	33.6	.....	40	20.82	ssw.	8.5	388	.....	1/10 A.Cu., sw.

August 20, 1916.

A. M.																
7:11	972.0	24.6	64	s.	4.0	396	972.0	24.6	.....	64	19.80	s.	4.0	388	.....	6/10 Cl.St., sw.
						500	960.3	25.6	.....	55	18.06	s.	6.4	490	0	
7:20	972.0	24.6	63	s.	4.0	749	933.9	28.1	−0.99	34	12.93	ssw.	12.1	734	0	
						1,000	907.0	25.8	.....	37	12.30	ssw.	11.3	980	0	
						1,250	881.5	23.4	.....	39	11.22	s.	10.5	1,225	0	
						1,500	857.0	21.1	.....	42	10.51	s.	9.7	1,470	0	
7:55	972.0	26.2	60	ssw.	4.9	1,576	849.8	20.4	0.93	43	10.31	s.	9.5	1,545	60	
						1,750	832.6	19.0	.....	43	9.45	s.	9.6	1,715	250	
						2,000	808.1	17.0	.....	42	8.14	s.	9.8	1,960	490	
						2,250	784.8	15.0	.....	42	7.16	s.	10.0	2,205	740	
						2,500	761.6	13.0	.....	41	6.14	ssw.	10.2	2,450	980	
						2,750	739.5	11.0	.....	40	5.25	ssw.	10.3	2,694	1,220	
8:40	972.0	27.7	53	ssw.	4.9	2,970	721.0	9.2	0.80	39	4.54	ssw.	10.5	2,910	1,360	
						3,000	717.5	8.9	.....	40	4.56	ssw.	10.6	2,939	1,380	
						3,250	696.5	6.5	.....	46	4.45	ssw.	11.4	3,184	1,620	
						3,500	676.0	4.1	.....	51	4.18	s.	12.2	3,429	1,860	
9:25	972.1	28.5	51	ssw.	4.5	3,552	671.9	3.6	0.96	52	4.11	s.	12.4	3,479	1,910	3/10 Cl St., sw.
						3,750	656.1	2.1	.....	52	3.70	s.	12.9	3,673	2,100	
						4,000	636.8	0.2	.....	53	3.29	s.	13.6	3,918	2,340	
						4,250	617.5	−1.7	.....	54	2.86	s.	14.2	4,162	2,580	
10:04	972.3	29.5	50	ssw.	4.0	4,441	602.1	−3.2	0.74	54	2.53	s.	14.7	4,349	.....	
						4,250	617.5	−1.8	.....	53	2.79	s.	13.8	4,162	2,580	
						4,000	636.8	0.0	.....	52	3.18	s.	12.6	3,918	2,170	
10:20	972.2	29.9	51	ssw	4.0	3,812	650.8	1.4	0.96	51	3.45	s.	11.7	3,734	1,930	
						3,750	656.1	2.0	.....	51	3.60	s.	11.7	3,673	1,760	
						3,500	676.2	4.4	.....	49	4.10	s.	11.7	3,429	1,570	
						3,250	697.4	6.8	.....	47	4.64	s.	11.8	3,184	1,380	
						3,000	719.0	9.2	.....	45	5.24	s.	11.8	2,939	1,190	
10:41	972.1	30.8	48	ssw	2.7	2,853	731.9	10.6	0.80	44	5.62	s.	11.8	2,795	1,105	4/10 Ci.St., sw.

TABLE 6.—*Free-air data from kite flights at Drexel Aerological Station, August, 1916*—Continued.

August 20, 1916—Continued.

Surface.						At different heights above sea.										Remarks.
Time.	Pressure.	Temperature.	Relative humidity.	Wind.		Altitude.	Pressure.	Temperature.	Δt / 100 m.	Humidity.		Wind.		Potential.		
				Dir.	Vel.					Rel.	Vap. pres.	Dir.	Vel.	Gravity.	Electric.	
A. M.	*mb.*	*° C.*	%		*m. p. s.*	*m.*	*mb.*	*° C.*		%	*mb.*		*m. p. s.*	*10^5 ergs.*	*volts.*	
						2,750	741.1	11.4	.....	44	5.93	s.	11.7	2,694	1,000	
						2,500	763.5	13.4	.....	45	6.92	s.	11.4	2,450	780	
						2,250	786.3	15.4	.....	46	8.05	s.	11.0	2,205	560	
						2,000	809.5	17.4	.....	46	9.14	s.	10.7	1,960	350	
						1,750	833.2	19.4	.....	47	10.59	s.	10.4	1,715	130	
11:07	972.0	31.4	42	sw.	4.0	1,631	844.8	20.4	0.89	47	11.27	s.	10.2	1,599	0	
						1,500	857.6	21.6	.....	46	11.87	s.	9.9	1,470	0	
						1,250	882.8	23.8	.....	43	12.68	s.	9.3	1,225	0	
11:20	972.0	31.6	44	sw.	3.1	1,055	902.5	25.5	0.68	41	13.38	s.	8.9	1,034	0	
						1,000	908.0	25.9	.....	41	13.70	s.	8.5	980	0	
						750	934.1	27.6	.....	44	16.25	s.	6.5	735	0	
11:28	972.0	31.6	44	sw	3.1	587	951.5	28.7	1.62	45	17.72	s.	5.2	575	0	
						500	960.3	30.1	.....	44	18.78	ssw.	4.5	490	0	
11:34	972.0	31.8	42	sw.	3.6	396	972.0	31.8	.....	42	19.75	sw.	3.6	388	.....	6/10 Ci.St., sw.

August 21, 1916.

A. M.																
7:10	964.9	25.8	64	sw.	9.8	396	964.9	25.8	.....	64	21.27	sw.	9.8	388	.....	7/10 A.Cu., sw.
						500	953.5	25.3	.....	64	20.65	sw.	11.9	490	0	
						750	927.0	23.9	.....	64	18.98	sw.	17.0	735	0	
7:19	964.9	25.8	63	sw.	7.2	833	918.0	23.5	0.53	64	18.53	sw.	18.7	817	0	
						1,000	900.1	22.3	.....	66	17.77	sw.	18.9	980	0	
						1,250	875.0	20.4	.....	68	16.30	sw.	19.3	1,225	0	
						1,500	850.0	18.6	.....	70	15.00	sw.	19.7	1,470	0	
7:37	965.0	26.2	62	ssw.	8.9	1,575	842.8	18.1	0.73	71	14.75	sw.	19.8	1,544	0	8/10 A.Cu., sw.
						1,750	826.0	17.4	.....	71	14.11	sw.	19.9	1,715	270	
						2,000	802.0	16.4	.....	72	13.43	sw.	19.9	1,960	720	
7:46	965.1	26.2	60	sw.	11.6	2,109	791.9	15.9	0.41	72	13.01	sw.	20.0	2,067	810	
7:52	965.1	26.2	59	sw.	10.3	2,234	780.6	16.9	−0.80	65	12.51	sw.	21.6	2,189	960	
						2,250	779.0	16.7	.....	65	12.36	sw.	21.6	2,205	990	
						2,500	756.1	14.1	.....	66	10.62	sw.	20.6	2,450	1,380	
8:36	965.6	25.1	63	sw.	10.3	2,674	740.7	12.3	1.12	66	9.44	sw.	20.0	2,620	.....	7/10 A.Cu., sw.
						2,500	756.1	14.4	.....	59	9.68	sw.	19.9	2,450	1,440	
						2,250	779.0	17.3	.....	48	9.48	sw.	19.9	2,205	1,200	
9:32	966.2	24.7	65	wsw.	13.9	2,141	788.7	18.6	−1.61	44	9.43	sw.	19.8	2,098	1,090	
9:34	966.2	24.7	65	wsw.	11.6	2,054	796.8	17.2	0.91	49	9.61	sw.	22.8	2,003	1,000	
						2,000	802.0	17.7	.....	50	10.12	sw.	22.2	1,960	950	
						1,750	826.0	20.0	.....	56	13.09	wsw.	19.6	1,715	900	Light rain 9:40—9:43 a. m.
9:45	966.3	24.5	66	wsw.	14.3	1,691	831.2	20.5	−1.11	57	13.75	wsw.	19.0	1,657	890	
						1,500	850.0	18.4	.....	71	15.02	wsw.	17.4	1,470	540	
						1,250	875.0	15.6	.....	90	15.95	wsw.	15.2	1,225	80	
10:02	966.5	24.2	67	wsw.	12.1	1,204	890.0	15.1	0.98	93	15.96	wsw.	14.8	1,180	0	
						1,000	900.1	17.1	.....	85	16.58	wsw.	13.7	980	0	
10:14	966.6	24.2	67	wsw.	9.8	827	919.8	18.8	1.16	78	16.93	wsw.	12.8	811	0	
						750	927.0	19.7	.....	77	17.67	wsw.	12.7	735	0	
						500	953.5	22.6	.....	72	19.75	wsw.	12.3	490	0	
10:20	966.6	23.8	70	wsw.	12.1	396	966.6	23.8	.....	70	20.64	wsw.	12.1	388	.....	8/10 A.Cu., sw.

August 22, 1916 (No. 1).

A. M.																
7:16	976.2	16.0	78	n.	5.4	396	976.2	16.0	.....	78	14.18	n.	5.4	388	.....	10/10 St.Cu.,n.
						500	954.5	14.9	.....	82	13.89	n.	7.0	490	0	
						750	936.8	12.2	.....	91	12.93	n.	10.8	735	0	
7:26	976.3	15.8	77	n.	3.6	803	930.2	11.6	1.08	93	12.70	n.	11.6	787	0	
						1,000	909.1	10.2	.....	93	11.58	n.	14.6	980	0	St.Cu. base about 1,150 m.
						1,250	882.0	8.4	.....	94	10.36	n.	18.4	1,225	80	
7:51	976.6	15.9	76	nnw.	4.5	1,478	857.9	6.8	0.71	94	9.29	n.	21.8	1,449	700	
						1,500	855.2	7.2	.....	90	9.14	n.	21.2	1,470	760	
7:59	976.7	16.1	77	nnw.	3.6	1,626	842.7	9.2	−2.50	64	7.45	n.	18.0	1,594	1,105	
8:03	976.7	16.1	77	nnw.	3.6	1,561	849.4	7.0	0.57	90	9.02	n.	16.4	1,530	1,025	
						1,500	855.2	7.4	.....	90	9.27	n.	16.0	1,470	940	
						1,250	882.0	8.8	.....	88	9.97	n.	14.3	1,225	630	
						1,000	909.1	10.3	.....	86	10.78	n.	12.6	980	320	St.Cu. base about 1,000 m.
						750	936.8	11.7	.....	85	11.69	n.	10.9	735	10	
8:19	976.8	16.1	75	nnw.	3.1	743	937.3	11.7	1.30	85	11.69	n.	10.8	729	0	
						500	954.5	14.9	.....	78	13.21	n.	6.4	490	0	
8:27	976.8	16.2	75	n.	4.5	396	976.8	16.2	.....	75	13.82	n.	4.5	388	.....	10/10 St.Cu.,n.

August 22, 1916 (No. 2).

A. M.																
9:43	977.5	15.7	73	n.	5.4	396	977.5	15.7	.....	73	13.02	n.	5.4	388	.....	10/10 St.Cu.,n.
						500	965.5	14.0	.....	78	12.46	n.	7.2	490	0	
9:52	977.6	15.8	72	n.	5.4	745	937.8	10.1	1.60	89	11.00	n.	11.3	730	0	
						1,000	910.0	8.2	.....	94	10.22	n.	12.9	980	450	St.Cu. base about 1,050 m.
10:06	977.7	16.5	69	n.	4.9	1,253	882.1	6.3	0.75	98	9.36	n.	14.5	1,228	820	
						1,500	856.1	7.8	.....	75	7.93	n.	13.9	1,470	1,150	
						1,750	831.0	9.4	.....	51	6.01	n.	13.3	1,715	1,560	8/10 St.Cu.,n.
10:45	977.7	18.1	64	n.	4.0	1,793	826.6	9.7	−0.63	47	5.65	n.	13.2	1,757	1,780	
						2,000	806.1	9.0	.....	43	4.94	nnw.	12.7	1,960	1,970	
						2,250	782.2	8.2	.....	38	4.13	nnw.	12.2	2,205	2,060	
						2,500	758.5	7.4	.....	33	3.40	nnw.	11.6	2,450	2,150	4/10 Cu.,nne.
11:13	977.6	18.7	60	nne.	4.9	2,641	745.9	6.9	0.33	30	2.98	nw.	11.3	2,588	2,200	
						2,750	736.2	6.1	.....	30	2.83	nw.	11.2	2,694	2,380	
						3,000	714.2	4.4	.....	30	2.51	nw.	11.0	2,939	2,760	1/10 Ci., ssw.; 3/10 Cu.,nne.
						3,250	692.5	2.7	.....	29	2.15	nw.	10.9	3,184	3,140	

TABLE 6.—*Free-air data from kite flights at Drexel Aerological Station, August, 1916*—Continued.

August 22, 1916 (No. 2)—Continued.

Surface.						At different heights above sea.										
Time.	Pressure.	Temperature.	Relative humidity.	Wind.		Altitude.	Pressure.	Temperature.	Δt / 100 m.	Humidity.		Wind.		Potential.		Remarks.
				Dir.	Vel.					Rel.	Vap. pres.	Dir.	Vel.	Gravity.	Electric.	
P. M.	*mb.*	°*C.*	%		*m. p. s.*	*m.*	*mb.*	°*C.*		%	*mb.*		*m. p. s.*	*10^6 ergs.*	*volts.*	
12:54	977.0	21.2	51	nne.	4.0	3,462	674.6	1.2	0.64	29	1.93	nw.	10.7	3,391	.....	
						3,250	692.5	2.5	.....	30	2.19	nw.	11.0	3,184	.....	
						3,000	714.2	4.0	.....	30	2.44	nnw.	11.4	2,939	.....	
						2,750	736.2	5.4	.....	31	2.78	nnw.	11.7	2,694	1,980	
1:15	976.9	21.5	50	nne.	5.4	2,700	741.1	5.7	0.62	31	2.84	nnw.	11.8	2,646	1,940	
						2,500	758.5	6.9	.....	31	3.08	n.	12.4	2,450	1,770	
						2,250	782.2	8.5	.....	32	3.55	n.	13.0	2,205	1,560	
1:31	976.8	22.3	50	nne.	4.0	2,051	802.0	9.7	−0.92	32	3.85	nne.	13.6	2,010	1,390	
						2,000	806.1	9.2	.....	34	3.96	nne.	13.5	1,960	1,340	
1:39	976.8	22.0	48	nne.	4.0	1,748	831.6	6.9	0.83	45	4.48	nne.	13.1	1,713	1,070	
						1,500	856.1	8.9	.....	56	6.38	nne.	10.2	1,470	800	
						1,250	882.2	11.0	.....	68	8.93	nne.	7.3	1,225	540	
1:51	976.7	22.0	48	ne.	4.9	1,179	890.7	11.6	1.07	71	9.70	nne.	6.5	1,156	460	
						1,000	909.0	13.5	.....	65	10.06	nne.	7.3	980	270	
1:58	976.7	22.0	48	ne.	4.0	841	927.2	15.2	1.55	60	10.36	nne.	8.1	825	100	
						750	936.8	16.6	.....	57	10.77	nne.	7.4	735	10	
						500	964.8	20.5	.....	50	12.06	ne.	5.3	490	0	
2:05	976.7	22.1	47	ne.	4.5	396	976.7	22.1	.....	47	12.50	ne.	4.5	388	.....	Few Ci., ssw.; 2/10 Cu.,nne.

August 23, 1916.

A. M.																
7:20	975.6	15.0	78	ssw.	4.0	396	975.6	15.0	.....	78	13.30	ssw.	4.0	388	.....	3/10 A.Cu.,nw.
						500	963.5	16.3	.....	67	12.42	ssw.	5.5	490	0	
7:33	975.5	15.5	75	sw.	4.9	728	938.2	19.3	−1.30	44	9.85	sw.	8.9	714	0	
						750	936.0	17.9	.....	39	8.00	sw.	9.0	735	0	
7:37	975.5	15.7	76	sw.	4.9	1,004	908.6	17.6	0.62	38	7.65	sw.	9.9	984	0	
8:01	975.3	17.1	69	sw.	5.8	1,183	889.7	18.8	−0.67	26	5.64	wsw.	7.9	1,160	0	
						1,250	882.8	18.2	.....	29	6.06	wsw.	8.2	1,225	75	
						1,500	857.1	16.0	.....	38	6.95	w.	9.2	1,470	350	
						1,750	832.2	13.8	.....	48	7.57	w.	10.2	1,715	620	
						2,000	808.2	11.6	.....	57	7.79	wnw.	11.2	1,960	860	
8:39	975.3	19.5	64	wsw.	5.4	2,035	804.9	11.3	0.88	58	7.77	wnw.	11.3	1,994	910	Few A.Cu., nw.
						2,250	784.1	9.3	.....	66	7.74	wnw.	12.0	2,205	1,100	
						2,500	761.0	6.9	.....	75	7.46	wnw.	12.8	2,450	1,350	
						2,750	738.2	4.5	.....	84	7.07	nw.	13.6	2,694	1,630	2/10 Ci., nnw.
9:28	975.2	23.5	52	sw.	6.7	3,001	716.2	2.1	0.95	94	6.68	nw.	14.4	2,940	1,930	
						3,250	694.2	1.3	.....	75	5.03	nw.	13.2	3,184	2,320	
						3,500	673.3	0.5	.....	55	3.48	nnw.	11.9	3,429	2,800	
10:24	974.9	25.0	44	sw.	7.6	3,712	655.4	−0.2	0.32	39	2.34	nnw.	10.9	3,636	3,200	
						3,750	653.0	−0.3	.....	38	2.26	nnw.	10.8	3,673	3,340	
						4,000	632.5	−1.0	.....	32	1.80	nnw.	9.8	3,918	3,820	Cloudless.
						4,250	612.8	−1.6	.....	25	1.34	nnw.	8.9	4,162	3,610	
11:53	973.7	26.9	41	wsw.	8.0	4,381	602.3	−2.0	0.21	22	1.14	nnw.	8.4	4,290	3,500	
						4,250	612.8	−1.8	.....	23	1.21	nnw.	8.5	4,162	3,450	
						4,000	632.5	−1.4	.....	25	1.38	nnw.	8.7	3,918	3,360	
						3,750	653.0	−1.1	.....	27	1.50	nnw.	8.9	3,673	3,265	
P. M.																
12:11	973.4	27.2	40	wsw.	7.6	3,635	661.4	−0.9	0.76	28	1.59	nnw.	9.0	3,561	3,145	
						3,500	673.3	0.1	.....	35	2.15	nnw.	10.3	3,429	2,960	
						3,250	694.2	2.0	.....	49	3.46	nw.	12.6	3,184	2,620	
						3,000	716.3	3.9	.....	63	5.09	nw.	15.0	2,939	2,280	
12:30	973.1	27.1	39	wsw.	7.2	2,940	720.9	4.4	0.92	66	5.52	nw.	15.6	2,880	2,200	
						2,750	737.4	6.1	.....	67	6.31	nw.	15.0	2,694	2,000	
						2,500	760.0	8.4	.....	69	7.60	nw.	14.3	2,450	1,740	
12:43	972.9	27.4	37	wsw.	8.0	2,362	772.7	9.7	1.07	70	8.42	nw.	13.9	2,315	1,595	
						2,250	783.0	10.9	.....	69	9.00	nw.	13.9	2,205	1,445	
						2,000	807.8	13.6	.....	68	10.59	wnw.	13.9	1,960	1,105	
12:57	972.6	28.0	36	wsw.	7.2	1,818	824.4	15.5	−1.01	67	11.80	wnw.	13.9	1,782	860	
1:06	972.5	27.6	37	wsw.	7.6	1,750	831.1	14.8	.....	67	11.28	w.	13.0	1,715	765	
						1,600	845.9	13.3	1.14	67	10.23	wsw.	11.0	1,568	565	
						1,500	856.0	14.4	.....	64	10.50	wsw.	10.9	1,470	445	
						1,250	881.1	17.3	.....	56	11.06	wsw.	10.5	1,225	135	
1:15	972.3	27.3	37	wsw.	7.2	1,137	893.1	18.6	1.29	52	11.14	wsw.	10.4	1,115	0	
						1,000	907.0	20.4	.....	49	11.75	wsw.	10.2	980	0	
1:30	972.0	28.0	38	wsw.	6.3	773	931.2	23.3	1.19	44	12.59	wsw.	9.8	758	0	
						750	933.1	23.6	.....	44	12.82	wsw.	9.6	735	0	
						500	960.0	26.6	.....	38	13.24	wsw.	7.9	490	0	
1:36	971.8	27.8	36	wsw.	7.2	396	971.8	27.8	.....	36	13.45	wsw.	7.2	388	.....	Cloudless.

August 24, 1916 (No. 1).

A. M.																
7:13	969.6	18.0	73	w.	4.0	396	969.6	18.0	.....	73	15.07	w.	4.0	388	.....	Cloudless.
						500	957.3	19.7	.....	63	14.46	w.	5.3	490	0	
						750	929.0	23.9	.....	41	12.16	wnw.	8.3	735	0	
7:20	969.6	18.0	75	w.	4.5	778	927.8	24.4	−1.68	38	11.62	wnw.	8.6	763	0	
						750	930.0	24.8	.....	37	11.58	wnw.	8.2	735	0	
9:02	969.6	23.8	58	w.	3.6	634	943.7	26.4	.....	33	11.36	nw.	6.3	622	0	
						750	930.0	25.5	.....	33	10.77	nw.	6.8	735	0	
						1,000	903.8	23.5	.....	33	9.56	nw.	7.8	980	0	
						1,250	878.8	21.4	.....	33	8.41	nnw.	8.7	1,225	0	
						1,500	854.2	19.4	.....	33	7.43	nnw.	9.7	1,470	0	
9:13	969.5	25.0	57	w.	3.6	1,518	852.5	19.3	0.83	33	7.39	nnw.	9.8	1,488	0	
						1,500	854.2	19.4	.....	33	7.43	nnw.	9.7	1,470	0	
						1,250	878.8	21.6	.....	33	8.51	nw.	8.4	1,225	0	
						1,000	903.8	23.7	.....	32	9.44	nw.	7.0	980	0	
						750	930.0	25.9	.....	32	10.69	wnw.	5.7	735	0	
10:06	969.2	27.3	53	w.	4.0	632	943.7	26.9	−1.15	32	11.34	wnw.	5.1	620	0	
10:08	969.2	27.1	54	w.	4.0	502	937.7	25.4	1.23	39	12.66	wnw.	5.1	492	0	
10:12	969.2	26.7	55	w.	4.0	396	969.2	26.7	.....	55	19.27	w.	4.0	388	.....	Cloudless.

TABLE 6.—*Free-air data from kite flights at Drexel Aerological Station, August, 1916*—Continued.

August 24, 1916 (No. 2).

Surface.						At different heights above sea.										Remarks.
Time.	Pressure.	Temperature.	Relative humidity.	Wind.		Altitude.	Pressure.	Temperature.	$\frac{\Delta t}{100\,m.}$	Humidity.		Wind.		Potential.		
				Dir.	Vel.					Rel.	Vap. pres.	Dir.	Vel.	Gravity.	Electric.	
P. M.	*mb.*	°*C.*	%		*m. p. s.*	*m.*	*mb.*	°*C.*		%	*mb.*		*m. p. s.*	*10^5 ergs.*	*volts.*	
2:50	967.0	32.8	28	nw.	3.6	396	967.0	32.8	.....	28	13.93	nw.	3.6	388	.....	2/10 Cu.,sw.
						500	955.5	31.3	.....	29	13.26	nw.	4.3	490	0	
						750	929.0	27.6	.....	30	11.08	nw.	6.1	735	0	
						1,000	902.8	23.8	.....	31	9.14	nw.	7.9	980	0	
3:06	966.9	32.5	28	nw.	4.5	1,105	892.2	22.3	1.48	32	8.62	nw.	8.6	1,083	0	
						1,250	877.2	20.7	.....	34	8.30	nw.	8.4	1,225	0	
						1,500	852.1	17.9	.....	38	7.79	nw.	8.0	1,470	140	
						1,750	827.3	15.1	.....	41	7.04	nw.	7.6	1,715	355	
3:53	966.9	31.5	33	nnw.	3.1	1,780	824.6	14.8	1.11	41	6.90	nw.	7.6	1,745	385	1/10 Cu.,sw.
						2,000	803.0	12.8	.....	42	6.21	nw.	8.1	1,960	.....	
						2,250	779.6	10.6	.....	44	5.62	nw.	8.6	2,205	.....	
4:26	966.9	30.7	37	nnw.	4.0	2,464	759.7	8.6	0.92	45	5.03	nw.	9.1	2,415	.....	
						2,250	779.6	10.6	.....	44	5.62	nw.	8.9	2,205	.....	
						2,000	803.0	12.9	.....	42	6.25	nw.	8.6	1,960	.....	
						1,750	827.3	15.2	.....	41	7.08	nw.	8.3	1,715	.....	
4:41	966.9	30.4	40	nnw.	3.6	1,708	831.3	15.6	0.85	41	7.27	nw.	8.3	1,674	.....	
						1,500	852.1	17.4	.....	44	8.74	nw.	8.7	1,470	320	
						1,250	877.2	19.5	.....	47	10.65	nw.	9.2	1,225	50	
4:58	966.9	29.6	41	n.	4.5	1,201	881.9	19.9	1.08	48	11.16	nw.	9.3	1,177	0	
						1,000	902.8	22.1	.....	46	12.24	nw.	9.5	980	0	
						750	929.0	24.7	.....	44	13.69	nw.	9.8	735	0	
5:10	967.0	29.8	40	n.	4.0	736	930.6	24.9	1.32	44	13.86	nw.	9.8	722	0	
						500	955.5	28.0	.....	41	15.50	nnw.	5.8	490	0	
5:16	967.1	29.4	39	n.	4.0	396	967.1	29.4	.....	39	15.99	n.	4.0	388	.....	Few Cu.,sw.

August 25, 1916 (No. 1).

A. M.																
7:12	968.8	17.2	73	sse.	2.7	396	968.8	17.2	.....	73	14.32	sse.	2.7	388	.....	1/10 Ci., wnw.
						500	956.9	17.8	.....	68	13.86	sse.	4.2	490	0	
						750	929.9	19.2	.....	56	12.46	s.	7.9	735	0	
7:20	968.8	17.5	69	s.	2.7	759	928.6	19.3	−0.58	56	12.54	s.	8.0	744	0	
						1,000	902.7	19.0	.....	53	11.64	ssw.	4.7	980	0	
8:36	968.4	20.8	55	s.	3.1	1,070	895.6	18.9	0.30	52	11.36	ssw.	3.8	1,049	0	
						1,000	902.7	19.2	.....	51	11.35	ssw.	4.3	980	0	
9:06	968.2	22.6	54	s.	2.7	792	925.1	20.2	0.76	50	11.84	s.	5.9	777	0	6/10 Ci., wnw.
						750	929.9	20.5	.....	50	12.06	s.	5.7	735	0	
						500	956.9	22.4	.....	52	14.09	s.	4.5	490	0	
9:24	968.1	23.2	53	s.	4.0	396	968.1	23.2	.....	53	15.07	s.	4.0	388	.....	4/10 Ci., wnw.

August 25, 1916 (No. 2).

P. M.																
4:17	966.1	25.0	51	ssw.	8.5	396	966.1	25.0	.....	51	16.16	ssw.	8.5	388	.....	9/10 St.Cu., sw.
						500	954.9	25.8	.....	47	15.62	ssw.	10.2	490	0	Light rain 4:13 to 4:35 p. m.
						750	928.0	27.8	.....	37	13.83	sw.	14.4	735	0	
4:21	966.0	24.6	57	ssw.	10.7	766	926.3	27.9	−0.78	36	13.53	sw.	14.7	751	0	
						1,000	902.0	25.6	.....	34	11.17	sw.	14.0	980	0	
						1,250	876.4	23.1	.....	31	8.76	wsw.	13.2	1,225	0	
4:33	965.8	25.4	51	ssw.	6.3	1,270	874.4	22.9	0.99	31	8.66	wsw.	13.1	1,245	0	
						1,500	851.5	20.7	.....	32	7.81	wsw.	12.9	1,470	520	
						1,750	827.0	18.3	.....	33	6.94	wsw.	12.6	1,715	1,090	
4:40	965.6	25.5	48	ssw.	5.8	1,799	822.4	17.8	0.96	33	6.73	wsw.	12.6	1,763	1,200	
						2,090	803.0	15.7	.....	36	6.42	wsw.	12.9	1,960	.....	
						2,250	779.4	13.1	.....	39	5.88	w.	13.3	2,205	.....	
4:53	965.4	25.3	51	sw.	5.4	2,455	760.8	10.9	1.05	42	5.48	w.	13.6	2,406	.....	
						2,500	755.0	10.4	.....	43	5.42	w.	13.7	2,450	.....	
						2,750	734.0	7.6	.....	49	5.12	w.	14.3	2,694	.....	
5:05	965.1	25.1	53	sw.	2.7	2,840	726.1	6.6	1.06	51	4.97	w.	14.5	2,783	.....	
						2,750	734.0	7.5	.....	50	5.18	w.	13.9	2,694	8,210	
						2,500	755.0	10.0	.....	48	5.89	w.	12.2	2,450	9,625	
						2,250	778.8	12.5	.....	46	6.67	wnw.	10.4	2,205	11,035	
5:22	964.8	25.2	56	sw.	2.2	2,081	794.6	14.2	1.14	44	7.12	wnw.	9.2	2,039	11,995	Weather threatening.
						2,000	802.2	15.1	.....	43	7.38	wnw.	9.2	1,9 0	12,450	
						1,750	826.1	18.0	.....	41	8.46	w.	9.0	1,715	6,9 0	
5:31	964.7	25.6	50	ssw.	1.8	1,583	842.3	19.9	1.11	39	9.06	w.	8.9	1,552	260	Partial rainbow 5:25 to 5:35 p. m.
						1,500	850.0	20.8	.....	38	9.34	w.	8.4	1,470	220	
						1,250	875.0	23.6	.....	34	9.90	wsw.	6.9	1,225	90	Partial solar halo, 22° radius,
5:45	964.4	25.4	52	ssw.	3.1	1,070	893.2	25.6	−0.04	31	10.18	wsw.	5.8	1,049	0	5:35 to 5:45 p. m.
						1,000	900.2	25.6	.....	33	10.84	wsw.	5.5	980	0	
						750	926.1	25.5	.....	42	13.71	sw.	4.5	735	0	
						500	952.8	25.3	.....	50	16.13	sw.	3.5	490	0	
5:49	964.4	25.3	53	ssw.	3.1	396	964.4	25.3	.....	53	17.10	ssw.	3.1	388	.....	9/10 St.Cu., sw.

TABLE 6.—*Free-air data from kite flights at Drexel Aerological Station, August, 1916*—Continued.

August 26, 1916.

Surface.						At different heights above sea.										Remarks.
Time.	Pressure.	Temperature.	Relative humidity.	Wind.		Altitude.	Pressure.	Temperature.	$\frac{\Delta t}{100\,m.}$	Humidity.		Wind.		Potential.		
				Dir.	Vel.					Rel.	Vap. pres.	Dir.	Vel.	Gravity.	Electric.	
A. M.	*mb.*	*° C.*	%		*m. p. s.*	*m.*	*mb.*	*° C.*		%	*mb.*		*m. p. s.*	*10^5 ergs.*	*volts.*	
7:13	969.4	15.0	86	nne.	3.6	396	969.4	15.0	.....	86	14.66	nne.	3.6	388	.....	2/10 Ci.St., sw.; 8/10 St.Cu., ne.
						500	957.0	14.2	.....	85	13.76	nne.	5.3	490	0	
						750	929.0	12.4	.....	83	11.95	nne.	9.4	735	0	St.Cu. base about 700 m.
						1,000	901.7	10.6	.....	81	10.35	ne.	13.6	980	320	
7:28	969.5	15.2	84	ne.	4.0	1,129	888.4	9.7	0.72	80	9.62	ne.	15.7	1,107	535	
						1,250	875.1	10.4	.....	71	8.95	nne.	14.3	1,225	755	
						1,500	799.5	11.9	.....	53	7.38	n.	11.4	1,470	1,315	
7:41	969.7	15.3	83	ne.	4.5	1,574	842.6	12.3	−0.58	48	6.87	n.	10.5	1,543	1,485	
						1,750	874.8	12.5	.....	43	6.23	nnw.	9.7	1,715	1,760	
						2,000	800.2	12.7	.....	35	5.14	nnw.	8.6	1,960	2,090	
8:14	969.9	16.0	81	nne.	4.0	2,100	791.6	12.8	−0.10	32	4.73	nw.	8.2	2,058	2,220	
						2,250	777.3	11.3	.....	34	4.55	nw.	7.6	2,205	2,570	9/10 St. Cu., ne.
						2,500	754.5	8.8	.....	37	4.19	nw.	6.6	2,450	2,470	Thunder between 9 and 10 a. m.
9:15	970.3	17.0	69	nne.	4.9	2,537	751.5	8.4	1.01	38	4.19	nw.	6.4	2,486	2,400	
						2,750	732.5	6.3	.....	44	4.20	nw.	6.2	2,694	.....	Light rain 9:44 to 10 a. m.
						3,000	710.5	3.8	.....	52	4.17	wnw.	6.0	2,939	.....	
10:03	971.3	16.6	67	nne.	4.5	3,174	695.3	2.1	0.94	57	4.05	wnw.	5.8	3,110	.....	
						3,000	710.5	3.6	.....	55	4.35	wnw.	6.7	2,939	.....	
						2,750	732.5	5.8	.....	53	4.89	wnw.	8.0	2,694	1,465	
10:24	971.3	17.0	68	nne.	3.6	2,687	737.3	6.4	0.63	52	5.00	wnw.	8.3	2,633	1,455	
						2,500	754.5	7.6	.....	51	5.32	nw.	9.5	2,450	1,425	
10:38	971.3	17.4	67	ne.	3.1	2,289	773.9	8.9	0.33	50	5.70	nnw.	10.9	2,243	1,390	
						2,250	777.3	9.0	.....	50	5.74	nnw.	11.1	2,205	1,335	
10:46	971.3	17.7	60	nne.	3.1	2,016	799.7	9.8	−0.39	50	6.06	n.	12.2	1,976	1,000	
						2,000	800.2	9.7	.....	50	6.02	n.	12.1	1,960	985	
						1,750	875.0	8.6	.....	52	5.81	n.	10.7	1,715	610	
						1,500	799.5	7.6	.....	53	5.53	n.	9.3	1,470	250	
10:52	971.3	17.8	58	nne.	3.6	1,452	856.1	7.6	0.58	53	5.53	n.	9.0	1,423	185	3/10 A.Cu., sw.; 7/10 St. Cu., ne.
						1,250	877.2	8.8	.....	66	7.48	nne.	7.8	1,225	0	
11:07	971.3	17.5	62	ne.	3.6	1,035	900.4	10.0	1.13	80	9.82	ne.	6.6	1,015	0	
						1,000	904.0	10.4	.....	78	9.84	ne.	6.8	980	0	
						750	931.2	13.2	.....	66	10.01	ne.	7.9	735	0	
11:13	971.3	17.9	57	ne.	4.0	716	935.5	13.6	1.44	64	9.97	ne.	8.0	702	0	
						500	959.2	16.7	.....	57	10.84	ne.	5.0	490	0	
11:23	971.3	18.2	54	ne.	3.6	396	971.3	18.2	.....	54	11.29	ne.	3.6	388	.....	10/10 St.Cu., ne.

August 28, 1916.

A. M.																
7:59	976.4	15.6	63	sw.	5.4	396	976.4	15.6	.....	63	11.16	sw.	5.4	388	.....	1/10 A.Cu., nw.
8:01	976.4	15.8	62	sw.	5.4	500	964.5	14.3	1.25	60	9.78	sw.	9.7	490	0	
8:02	976.4	15.8	62	sw.	5.4	639	948.7	16.9	−1.87	57	10.97	sw.	9.7	626	0	
						750	937.0	16.1	.....	55	10.06	sw.	9.6	735	0	
						1,000	909.8	14.4	.....	50	8.20	sw.	9.5	980	0	
8:23	976.4	16.8	58	sw.	5.8	1,151	893.1	13.4	0.68	47	7.22	sw.	9.4	1,128	0	
						1,250	882.8	12.8	.....	49	7.24	sw.	8.6	1,225	225	
						1,500	856.7	11.3	.....	53	7.10	sw.	6.6	1,470	695	2/10 A.Cu., nw.
9:51	976.4	21.2	44	sw.	10.3	1,649	842.6	10.4	0.60	56	7.06	sw.	5.4	1,616	890	
						1,750	832.0	9.7	.....	58	6.98	sw.	5.4	1,715	1,500	
						2,000	807.8	8.1	.....	64	6.91	sw.	5.5	1,960	2,600	
11:08	975.6	23.5	40	wsw.	8.9	2,145	793.7	7.2	0.65	68	6.91	sw.	5.5	2,102	3,200	Cloudless.
						2,250	783.7	6.3	.....	69	6.59	sw.	5.0	2,205	.....	
						2,500	759.3	4.2	.....	71	5.86	wsw.	3.8	2,450	.....	
11:15	975.5	23.1	39	sw.	8.5	2,681	742.9	2.7	0.87	72	5.34	wsw.	3.0	2,627	.....	
						2,500	759.3	4.3	.....	70	5.82	wsw.	4.1	2,450	1,995	
						2,250	782.8	6.6	.....	67	6.53	wsw.	5.7	2,205	1,965	
						2,000	806.6	8.8	.....	64	7.25	wsw.	7.3	1,960	1,940	
11:47	975.2	24.3	36	ssw.	8.9	1,990	808.2	8.9	0.69	64	7.30	wsw.	7.3	1,950	1,935	
						1,750	831.0	10.6	.....	62	7.92	sw.	7.9	1,715	1,625	
						1,500	856.7	12.3	.....	59	8.44	sw.	8.6	1,470	1,235	
						1,250	882.2	14.0	.....	56	8.95	ssw.	9.3	1,225	1,000	
P. M.																
12:14	974.8	23.6	37	ssw.	8.0	1,195	888.0	14.4	1.14	55	9.02	ssw.	9.4	1,171	950	
						1,000	908.5	16.6	.....	51	9.63	ssw.	10.3	980	530	
12:25	974.6	24.2	36	sw.	8.9	791	931.1	19.0	1.34	46	10.11	sw.	11.5	776	85	
						750	937.0	19.6	.....	45	10.26	sw.	11.3	735	0	
						500	962.8	22.9	.....	39	10.89	sw.	10.0	490	0	
12:33	974.5	24.3	36	sw.	9.4	396	974.5	24.3	.....	36	10.94	sw.	9.4	388	.....	Cloudless.

TABLE 6.—*Free-air data from kite flights at Drexel Aerological Station, August, 1916*—Continued.

August 29, 1916.

Surface.						At different heights above sea.											Remarks.
Time.	Pressure.	Temperature.	Relative humidity.	Wind.		Altitude.	Pressure.	Temperature.	$\frac{\Delta t}{100\ m.}$	Humidity.		Wind.		Potential.			
				Dir.	Vel.					Rel.	Vap. pres.	Dir.	Vel.	Gravity.	Electric.		
A. M.	*mb.*	°*C.*	%		*m. p. s.*	*m.*	*mb.*	°*C.*		%	*mb.*		*m. p. s.*	10^5 *ergs.*	*volts.*		
7:14	972.6	15.3	58	sw.	2.7	396	972.6	15.3	.....	58	10.08	sw.	2.7	388	0		Few Ci.St.,nw.;4/10 St.Cu.,wsw.
						500	960.8	15.5	.....	56	9.86	sw.	7.5	490	680		
7:21	972.6	15.3	58	sw.	2.7	748	933.1	16.0	−0.20	51	9.27	wsw.	19.1	733	2,300		
						1,000	906.1	17.8	.....	45	9.17	wsw.	19.2	980	3,080		
7:38	972.6	15.4	58	sw.	3.1	1,138	891.4	18.8	−0.72	41	8.90	wsw.	19.3	1,116	3,500		Few Ci.St.,nw.;6/10St.Cu.,wsw.
						1,250	880.0	18.0	.....	43	8.88	wsw.	18.7	1,225	2,630		
						1,500	854.5	16.4	.....	49	9.14	wsw.	17.5	1,470	690		
7:55	972.6	15.5	62	sw.	3.1	1,688	835.8	15.1	0.67	53	9.09	wsw.	16.5	1,654	10,000		
						1,750	829.3	14.6	.....	56	9.31	wsw.	16.4	1,715	13,720		
						2,000	804.7	12.6	.....	66	9.63	wsw.	16.0	1,960	38,720		6/10 St.Cu., w.
						2,250	781.0	10.5	.....	77	9.78	w.	15.7	2,205	43,760		
9:15	972.6	17.9	56	sw.	4.5	2,354	772.4	9.6	0.83	81	9.68	w.	15.6	2,307	50,000		Light rain 9:14 to 9:30 a. m.
						2,500	758.2	8.8	.....	86	9.74	w.	14.2	2,450	.....		
10:33	972.8	21.9	48	ssw.	5.8	2,673	743.9	7.8	0.56	91	9.63	w.	12.5	2,619	.....		
						2,750	737.5	7.2	.....	89	9.04	w.	12.5	2,694	.....		
						3,000	715.0	5.2	.....	84	7.43	w.	12.5	2,939	.....		
10:56	973.0	23.0	44	sw.	7.2	3,202	697.3	3.6	0.79	80	6.33	w.	12.5	3,137	.....		2/10 A.Cu., w.; 2/10 St.Cu., w.
						3,250	693.0	3.2	.....	79	6.08	w.	12.7	3,184	.....		
						3,500	671.3	1.0	.....	77	5.06	w.	13.8	3,429	.....		Thunderstorms in ne. and sw.
11:49	972.2	22.9	42	ssw.	6.7	3,579	665.3	0.3	0.88	76	4.74	w.	14.2	3,506	.....		joined southeast of station at
						3,500	671.3	1.0	.....	77	5.06	w.	14.4	3,429	.....		9:45 a. m.
						3,250	693.0	3.2	.....	79	6.08	w.	15.0	3,184	.....		
						3,000	715.0	5.4	.....	81	7.27	w.	15.6	2,939	.....		
P. M.																	
12:08	971.9	24.8	41	ssw.	6.7	2,811	731.4	7.0	0.74	83	8.32	w.	16.1	2,754	.....		
						2,750	737.5	7.5	.....	81	8.40	w.	15.8	2,694	.....		
						2,500	758.2	9.3	.....	72	8.44	wnw.	14.4	2,450	.....		
						2,250	781.0	11.2	.....	64	8.51	wnw.	13.0	2,205	.....		
						2,000	804.7	13.0	.....	56	8.39	wnw.	11.5	1,960	.....		
						1,750	829.3	14.8	.....	48	8.08	wnw.	10.0	1,715	.....		
						1,500	854.5	16.7	.....	40	7.60	nw.	8.6	1,470	.....		
12:35	971.8	26.3	38	ssw.	7.6	1,377	867.6	17.6	0.44	36	7.25	nw.	7.9	1,350	1,040		Few Ci., w.; 1/10 A.Cu., w.; 1/10
						1,250	880.0	18.2	.....	38	7.94	wnw.	8.0	1,225	600		St.Cu., w.
						1,000	905.0	19.2	.....	41	9.12	wsw.	8.1	980	280		
12:59	971.6	25.5	38	ssw.	7.2	780	929.6	20.2	1.41	44	10.42	ssw.	8.2	765	0		
						750	932.2	20.6	.....	44	10.68	ssw.	8.1	735	0		
						500	959.2	24.1	.....	40	12.01	sw.	7.1	490	0		
1:04	971.6	25.6	38	sw.	6.7	396	971.6	25.6	.....	38	12.48	sw.	6.7	388	.....		2/10 A.Cu., w.; 1/10 St.Cu., w.

August 30, 1916.

P. M.																	
12:14	971.2	22.2	68	sse.	2.2	396	971.2	22.2	.....	68	18.20	sse.	2.2	388	.....		10/10 St.Cu.,wsw.
						500	959.5	22.8	.....	56	15.55	sse.	5.7	490	0		
12:17	971.2	22.2	68	sse.	2.2	589	950.0	23.3	−0.57	45	12.87	sse.	8.7	577	0		
						750	932.2	22.3	.....	45	12.12	sse.	9.1	735	0		
						1,000	905.5	20.7	.....	44	10.74	s.	9.8	980	0		
12:50	971.0	23.0	63	s.	1.8	1,230	882.0	19.2	0.64	44	9.79	s.	10.4	1,206	0		
						1,250	879.3	17.5	.....	45	9.00	s.	11.3	1,225	0		
						1,500	854.0	16.1	.....	52	9.52	ssw.	12.0	1,470	0		
1:14	970.8	23.6	60	s.	3.6	1,750	829.8	14.7	0.87	59	9.87	ssw.	12.8	1,715	0		
						2,000	805.2	12.7	.....	58	8.52	ssw.	12.3	1,960	480		
1:32	970.7	23.6	62	s.	3.6	2,243	782.4	10.7	0.81	58	7.46	ssw.	11.8	2,198	950		
						2,250	781.8	10.6	.....	58	7.41	ssw.	11.8	2,205	965		
						2,500	759.0	8.5	.....	68	7.55	sw.	13.0	2,450	1,385		
						2,750	736.5	6.3	.....	79	7.54	sw.	14.2	2,694	1,805		
						3,000	713.8	4.2	.....	89	7.34	wsw.	15.4	2,939	1,910		
2:03	970.6	24.2	60	sse.	4.0	3,088	706.5	3.4	0.92	93	7.25	wsw.	15.8	3,025	.....		
						3,000	713.8	4.2	.....	88	7.26	wsw.	15.5	2,939	.....		
						2,750	736.5	6.6	.....	75	7.31	wsw.	14.7	2,694	.....		
						2,500	759.0	9.1	.....	61	7.05	sw.	13.8	2,450	.....		
						2,250	781.8	11.5	.....	48	6.51	sw.	13.0	2,205	.....		
2:19	970.5	23.8	59	sse.	3.6	2,228	784.0	11.7	0.95	47	6.46	sw.	12.9	2,183	660		
						2,000	805.2	13.9	.....	43	6.83	sw.	12.0	1,960	710		
						1,750	829.8	16.2	.....	39	7.18	ssw.	11.1	1,715	770		
2:37	970.4	23.5	62	sse.	3.1	1,699	834.7	16.7	0.76	38	7.22	ssw.	10.9	1,665	780		
						1,500	854.0	18.2	.....	38	7.94	ssw.	10.1	1,470	450		
						1,250	879.3	20.1	.....	38	8.94	s.	9.0	1,225	40		
2:46	970.4	23.4	61	sse.	3.1	1,226	882.0	20.3	0.67	38	9.05	s.	8.9	1,202	0		
						1,000	905.0	21.8	.....	36	9.40	s.	9.4	980	0		
3:03	970.3	23.4	60	s.	3.1	775	928.9	23.3	−0.43	35	10.01	s.	9.9	760	0		
						750	931.1	23.2	.....	36	10.24	s.	9.7	735	0		
3:05	970.3	23.4	60	s.	3.1	612	946.5	22.6	0.37	44	12.07	s.	8.3	600	0		
						500	958.0	23.0	.....	52	14.61	s.	5.6	490	0		
3:10	970.2	23.4	59	s.	3.1	396	970.2	23.4	.....	59	16.98	s.	3.1	388	.....		10/10 St.Cu., wsw.

August 31, 1916.

P. M.																	
2:13	967.1	19.8	93	ssw.	3.6	396	967.1	19.8	.....	93	21.48	ssw.	3.6	388	.....		10/10 St., ssw.
						500	955.1	19.1	.....	94	20.78	ssw.	6.1	490	0		Light rain. Altitude of St.
						750	927.8	17.4	.....	97	19.27	ssw.	12.1	735	30		base about 600 m.
2:31	967.0	19.4	96	ssw.	3.6	890	912.9	16.4	0.69	98	18.28	ssw.	15.4	873	260		
						1,000	900.9	15.9	.....	98	17.71	sw.	14.3	980	195		
						1,250	875.0	14.6	.....	98	16.29	wsw.	11.9	1,225	50		
3:25	966.7	20.1	95	ssw.	4.0	1,433	856.4	13.7	0.58	98	15.37	w.	10.1	1,405	0		
						1,250	875.0	14.9	.....	96	16.26	w.	9.8	1,225	0		
3:37	966.7	20.1	95	ssw.	3.6	1,004	900.7	16.5	0.64	94	17.64	w.	9.3	984	0		
						750	927.8	18.1	.....	94	19.52	wsw.	6.9	735	0		
						500	954.2	19.7	.....	93	21.34	sw.	4.6	490	0		Light rain.
3:58	966.5	20.4	93	ssw.	3.6	396	966.5	20.4	.....	93	22.29	ssw.	3.6	388	.....		10/10 St., sw.

TABLE 7.—*Free-air data from kite flights at Drexel Aerological Station, September, 1916.*

September 2, 1916.

Surface.						At different heights above sea.										Remarks.
Time.	Pressure.	Temperature.	Relative humidity.	Wind.		Altitude.	Pressure.	Temperature.	Δt 100 m.	Humidity.		Wind.		Potential.		
				Dir.	Vel.					Rel.	Vap. pres.	Dir.	Vel.	Gravity.	Electric.	
P. M.	*mb.*	*°C.*	%		*m. p. s.*	*m.*	*mb.*	*°C.*		%	*mb.*		*m. p. s.*	*10^5 ergs.*	*volts.*	
3:01	974.3	27.8	64	se.	2.7	396	974.3	27.8		64	23.92	se.	2.7	388		7/10 Cu., se.
						500	962.9	26.2		67	22.79	se.	3.9	490	0	
						750	935.7	22.3		75	20.20	se.	6.7	735	0	
3:52	974.0	27.5	63	se.	4.0	808	929.4	21.4	1.55	77	19.63	se.	7.3	792	0	
						1,000	908.8	19.9		79	18.36	se.	7.3	980	0	
						1,250	882.5	17.8		81	16.51	sse.	7.4	1,225	0	
4:39	973.5	27.4	65	se.	4.5	1,415	865.7	16.5	0.81	82	15.39	sse.	7.4	1,387	0	
						1,500	856.9	16.2		78	14.37	sse.	7.7	1,470	0	
						1,750	832.0	15.4		66	11.55	s.	8.6	1,715	0	
4:56	973.4	27.2	66	se.	4.5	1,868	820.8	15.0	0.39	60	10.23	s.	9.0	1,831	0	1/10 Cu., s.
						1,750	832.0	15.5		65	11.45	s.	8.9	1,715	0	
						1,500	856.9	16.6		74	13.98	sse.	8.8	1,470	0	
						1,250	882.5	17.8		84	17.12	se.	8.6	1,225	0	
5:06	973.2	27.2	65	se.	4.9	1,163	891.2	18.2	1.04	87	18.18	se.	8.5	1,140	0	
						1,000	908.2	19.9		81	18.82	se.	8.9	980	0	
5:17	973.1	27.0	66	se.	4.9	767	932.9	22.3	1.27	72	19.39	ese.	9.5	752	0	
						750	934.8	22.5		72	19.63	ese.	9.3	735	0	
						500	962.0	25.7		68	22.46	se.	5.9	490	0	
5:24	973.1	27.0	66	se.	4.5	396	973.1	27.0		66	23.54	se.	4.5	388		Cloudless.

September 3, 1916.

A. M.																
7:22	970.8	20.7	89	sse.	4.0	396	970.8	20.7		89	21.73	sse.	4.0	388		3/10 Ci., sw.
						500	959.3	21.0		82	20.39	sse.	6.0	490	0	
7:26	970.8	20.6	91	s.	4.0	745	932.4	21.6	−0.26	67	17.29	s.	10.8	730	0	
						1,000	905.3	19.7		70	16.06	s.	14.2	980	0	
						1,250	879.5	17.9		73	14.97	s.	17.6	1225	28	
						1,500	854.4	16.1		76	13.91	s.	20.9	1470	150	
7:53	970.6	21.3	88	s.	4.0	1,542	849.9	15.8	0.73	77	13.82	s.	21.5	1511	170	
						1,750	829.4	14.7		78	13.05	s.	21.7	1715	320	
						2,000	805.1	13.4		78	11.99	s.	21.8	1960	620	
8:12	970.5	22.1	86	s.	4.9	2,222	784.3	12.3	0.51	79	11.30	s.	22.0	2178	890	
						2,250	882.0	12.1		79	11.15	s.	21.9	2205	910	
						2,500	858.8	10.4		80	10.09	s.	20.7	2450	1120	
						2,750	736.1	8.6		81	9.05	s.	19.5	2694	1320	
8:41	970.4	23.4	80	s.	5.4	2,941	719.4	7.3	0.70	82	8.39	s.	18.6	2881	1440	
						3,000	714.4	6.9		82	8.16	s.	18.5	2939	1480	
						3,250	693.0	5.4		81	7.27	s.	17.9	3184	1700	
9:28	970.1	24.9	74	s.	7.6	3,320	687.0	5.0	0.63	81	7.06	s.	17.8	3252	1830	3/10 Ci., sw.
						3,250	693.0	5.5		80	7.22	s.	18.0	3184	1760	
						3,000	714.3	7.2		77	7.82	s.	18.7	2939	1530	
						2,750	735.9	8.8		74	8.38	s.	19.4	2694	1310	
						2,500	858.0	10.4		71	8.95	s.	20.2	2450	1140	
						2,250	881.0	12.0		68	9.54	s.	20.9	2205	970	
10:08	969.8	25.4	71	s.	7.6	2,217	784.3	12.2	0.66	68	9.66	s.	21.0	2173	950	4/10 Ci., sw.; 1/10 Cu., ssw.
						2,000	804.5	13.6		69	10.75	s.	21.3	1,960	700	
						1,750	828.6	15.3		69	11.99	s.	21.7	1,715	420	
10:31	969.5	26.3	64	s.	9.4	1,536	849.9	16.7	0.24	70	13.31	s.	22.0	1,505	170	
						1,500	853.4	16.8		72	13.77	s.	21.7	1,470	150	
						1,250	878.6	17.4		88	17.49	s.	19.4	1,225	220	
10:46	969.4	26.5	63	s.	13.0	1,201	883.8	17.5	1.01	91	18.20	s.	19.0	1,177	0	
						1,000	904.3	19.5		85	19.27	s.	16.1	980	0	
11:03	969.1	26.9	64	s.	10.3	784	927.1	21.7	1.34	78	20.25	s.	13.0	769	0	
						750	930.7	22.2		77	20.61	s.	12.7	735	0	
						500	957.5	25.5		68	22.20	s.	10.4	490	0	
11:12	968.9	26.9	64	s.	9.4	396	968.9	26.9		64	22.69	s.	9.4	388		Few Ci., sw.; 2/10 A. Cu., ssw.; 1/10 Cu., ssw.

September 4, 1916 (No. 1).

A. M.																
7:17	962.1	22.8	74	sw.	6.3	396	962.1	22.8		74	20.54	sw.	6.3	388		Few A.Cu.
						500	950.8	22.3		72	19.39	sw.	10.4	490	0	
7:25	962.1	23.0	73	sw.	6.3	755	923.2	21.2	0.45	66	16.62	wsw.	20.5	740	0	
						1,000	898.0	23.3		54	15.45	wsw.	12.9	980	0	
7:37	962.1	23.3	71	ssw.	7.2	1,055	892.0	23.8	−0.87	53	15.63	wsw.	11.2	1,034	0	
						1,250	872.3	23.4		47	13.53	w.	5.6	1,225	0	
8:55	962.1	25.6	65	wsw.	7.6	1,363	861.3	23.2		44	12.51	w.	2.4	1,336	0	
						1,250	872.3	22.8		49	13.60	wsw.	4.1	1,225	0	
						1,000	898.7	21.8		60	15.67	wsw.	7.8	980	0	
9:26	962.1	26.0	64	sw.	7.2	858	912.7	21.3	1.02	66	16.72	sw.	9.9	841	0	
						750	924.9	22.4		66	17.88	sw.	9.3	735	0	
						500	950.9	24.9		64	20.16	sw.	7.8	490	0	
9:28	962.1	26.0	64	sw.	7.2	396	962.1	26.0		64	21.52	sw.	7.2	388		1/10 A.Cu., sw.

TABLE 7.—*Free-air data from kite flights at Drexel Aerological Station, September, 1916*—Continued.

September 4, 1916 (No. 2).

Surface.						At different heights above sea.										
				Wind.					$\frac{\Delta t}{100\ m.}$	Humidity.		Wind.		Potential.		Remarks.
Time.	Pressure.	Temperature.	Relative humidity.	Dir.	Vel.	Altitude.	Pressure.	Temperature.		Rel.	Vap. pres.	Dir.	Vel.	Gravity.	Electric.	
A. M.	*mb.*	*°C.*	%		*m.p.s.*	*m.*	*mb.*	*°C.*		%	*mb.*		*m.p.s.*	*10^5 ergs.*	*volts.*	
9:33	962.1	25.9	63	sw.	6.3	396	962.1	25.9	.....	63	21.05	sw.	6.3	388	.....	1/10 A.Cu., sw.
						500	951.2	24.5	.....	66	20.30	sw.	7.0	490	0	
						750	924.3	21.0	.....	73	18.16	wsw.	8.8	735	0	
9:40	962.1	26.5	63	wsw.	8.0	791	919.7	20.4	1.39	74	17.74	wsw.	9.1	776	0	
						1,000	897.9	23.7	.....	52	15.24	wsw.	5.7	980	0	
9:55	962.1	26.6	64	wsw.	8.0	1,040	893.7	24.3	−1.57	48	14.59	wsw.	5.0	1,020	0	
						1,250	872.2	24.5	.....	41	12.61	sw.	4.3	1,225	0	
10:29	962.1	27.2	61	sw.	6.3	1,468	851.2	24.8	−0.12	33	10.33	ssw.	3.5	1,439	0	
						1,500	848.4	24.5	.....	33	10.15	ssw.	3.6	1,470	0	
						1,750	824.5	22.2	.....	33	8.83	ssw.	4.6	1,715	0	
						2,000	800.8	19.9	.....	33	7.67	s.	5.7	1,960	0	
11:37	962.1	28.6	59	sw.	7.2	2,166	785.5	18.4	0.76	33	6.98	s.	6.4	2,123	0	
						2,000	800.8	19.4	.....	36	8.11	s.	6.5	1,960	0	
						1,750	824.5	20.9	.....	41	10.14	s.	6.7	1,715	0	
						1,500	848.4	22.4	.....	45	12.19	ssw.	6.9	1,470	0	
						1,250	873.0	23.9	.....	50	14.83	ssw.	7.1	1,225	0	
P. M.																
12:06	962.1	29.1	57	sw.	6.7	1,146	883.4	24.5	−0.78	52	15.99	ssw.	7.2	1,123	0	
						1,000	898.0	23.4	.....	53	15.25	ssw.	6.7	980	0	
12:09	962.1	29.3	56	ssw.	6.7	876	911.0	22.4	1.33	53	14.36	ssw.	6.2	859	0	
						750	924.3	24.1	.....	63	18.91	ssw.	8.0	735	0	
12:15	962.1	29.4	55	sw.	6.7	711	928.5	24.6	1.65	66	20.42	ssw.	8.5	697	0	
						500	951.2	28.1	.....	60	22.82	sw.	7.0	490	0	
12:21	962.1	29.8	57	sw.	6.3	396	962.1	29.8	.....	57	23.92	sw.	6.3	388	.....	1/10 Cu., sw.

September 5, 1916.

A. M.																
7:40	964.2	19.9	86	ssw.	2.7	396	964.2	19.9	.....	86	19.99	ssw.	2.7	388	.....	1/10A.Cu.,wsw.:fewSt.Cu.wsw.
						500	932.5	21.0	.....	79	19.65	ssw.	7.8	490	0	
7:45	964.2	20.1	86	ssw.	2.7	720	928.9	23.4	−1.08	64	18.42	ssw.	18.7	706	0	
						750	925.8	23.2	.....	64	18.20	ssw.	18.3	735	0	
						1,000	899.8	21.6	.....	66	17.03	ssw.	15.1	980	0	
8:05	964.2	21.0	84	s.	2.7	1,207	878.5	20.3	0.64	68	16.20	ssw.	12.5	1,183	0	
						1,250	874.4	21.0	.....	64	15.92	sw.	12.0	1,225	0	
8:10	964.2	21.2	85	ssw.	2.7	1,276	871.7	21.4	−1.59	62	15.80	sw.	11.7	1,251	0	
8:15	964.2	21.6	84	ssw.	3.1	1,361	863.2	20.4	1.18	65	15.58	sw.	12.1	1,334	0	
						1,500	849.4	22.3	.....	50	13.46	sw.	10.4	1,470	0	
8:27	964.2	21.9	82	s.	4.9	1,618	838.0	23.9	−1.36	38	11.27	sw.	8.9	1,586	0	
						1,750	825.2	22.9	.....	37	10.33	sw.	8.0	1,715	0	1/10 St. Cu., wsw.
						2,000	802.0	20.9	.....	36	8.90	sw.	6.3	1,960	0	
10:19	964.0	26.4	70	sw.	4.5	2,078	795.2	20.3	0.62	36	8.58	sw.	5.8	2,036	0	
						2,000	802.0	20.7	.....	37	9.04	sw.	5.7	1,960	0	
						1,750	825.2	21.8	.....	41	10.71	sw.	5.5	1,715	0	
						1,500	849.4	23.0	.....	44	12.36	sw.	5.2	1,470	0	
						1,250	873.8	24.1	.....	48	14.41	sw.	5.0	1,225	0	
10:58	963.5	27.3	66	sw.	5.8	1,037	895.7	25.1	−1.62	51	16.57	sw.	4.8	1,017	0	
						1,000	899.0	24.5	.....	57	17.53	sw.	5.1	980	0	
11:24	963.3	27.9	65	ssw.	4.0	901	909.6	22.9	1.09	74	20.67	ssw.	5.9	883	0	
						750	924.6	24.5	.....	70	21.52	ssw.	5.6	735	0	
						500	951.3	27.3	.....	64	23.23	s.	5.1	490	0	
11:56	963.1	28.4	62	s.	4.9	396	963.1	28.4	.....	62	23.99	s.	4.9	388	.....	1/10 A.Cu.,wsw.

September 6, 1916.

A. M.																
8:22	960.3	25.6	67	s.	7.6	396	960.3	25.6	.....	67	22.00	s.	7.6	388	.....	7/10 A.Cu., wsw.
						500	949.0	24.7	.....	67	20.85	s.	11.1	490	0	
						750	922.0	22.6	.....	66	18.10	ssw.	19.4	735	0	
8:27	960.3	25.7	69	s.	7.6	768	920.3	22.4	0.86	66	17.88	ssw.	20.0	753	0	
						1,000	895.9	24.6	.....	52	16.09	sw.	20.5	980	0	
8:32	960.2	25.6	70	s.	7.2	1,019	894.2	24.8	−0.96	51	15.97	sw.	20.5	999	0	
						1,250	870.5	23.1	.....	49	13.85	sw.	20.5	1,225	0	
						1,500	845.0	21.2	.....	46	11.58	sw.	20.4	1,470	0	
						1,750	820.9	19.4	.....	44	9.91	ssw.	20.3	1,715	130	
						2,000	797.7	17.6	.....	42	8.45	ssw.	20.3	1,960	340	
						2,250	775.3	15.7	.....	40	7.14	ssw.	20.2	2,205	550	
9:12	960.2	26.1	68	ssw.	7.2	2,424	759.8	14.4	0.74	38	6.23	ssw.	20.2	2,375	650	3/10A.Cu.,wsw.:5/10St.Cu.,wsw
						2,500	752.8	13.7	.....	39	6.12	ssw.	20.2	2,450	680	
						2,750	730.5	11.6	.....	43	5.87	ssw.	20.1	2,694	870	
						3,000	708.5	9.4	.....	47	5.54	ssw.	20.1	2,939	1,180	
						3,250	687.8	7.2	.....	51	5.18	ssw.	20.1	3,184	1,490	
						3,500	667.5	5.0	.....	55	4.80	ssw.	20.0	3,429	1,700	
10:11	960.3	27.7	61	ssw.	9.8	3,719	649.8	3.1	0.80	58	4.43	ssw.	20.0	3,643	1,880	
						3,500	667.5	4.7	.....	59	5.04	ssw.	20.1	3,429	1,730	
						3,250	687.8	6.6	.....	60	5.85	ssw.	20.2	3,184	1,610	
						3,000	708.5	8.4	.....	62	6.83	ssw	20.4	2,939	1,430	
10:59	960.1	28.6	59	ssw.	10.7	2,978	711.0	8.6	0.88	62	6.93	ssw.	20.4	2,918	1,420	
						2,750	730.5	10.6	.....	62	7.92	ssw.	20.3	2,694	1,260	
						2,500	752.8	12.8	.....	61	9.02	ssw.	20.2	2,450	1,080	
						2,250	775.3	15.0	.....	61	10.40	sw.	20.0	2,205	910	
						2,000	798.1	17.2	.....	61	11.97	sw.	19.8	1,960	670	
						1,750	822.1	19.4	.....	60	13.52	sw.	19.6	1,715	390	4/10A.Cu.,wsw.:3/10St.Cu.,wsw
11:42	959.9	30.5	56	ssw.	8.9	1,602	836.5	20.7	−3.14	60	14.65	sw.	19.5	1,570	230	
11:45	959.0	30.0	55	ssw.	8.9	1,551	841.5	19.1	0.92	65	14.37	sw.	19.3	1,520	170	Thunder in west-northwest.
						1,500	846.3	19.6	.....	65	14.83	sw.	18.9	1,470	140	
						1,250	870.5	21.9	.....	62	16.29	sw.	17.0	1,225	10	
						1,000	895.9	24.2	.....	60	18.12	sw.	15.2	980	0	
P. M.																
12:07	959.7	30.1	55	ssw.	8.0	836	913.3	25.7	1.20	58	19.16	sw.	14.0	820	0	
						750	922.0	26.7	.....	57	19.97	sw.	13.0	735	0	
						500	948.0	29.7	.....	53	22.11	ssw.	10.1	490	0	
12:16	959.6	31.0	52	ssw.	8.9	396	959.6	31.0	.....	52	23.37	ssw.	8.9	388	.....	7/10 A.Cu., wsw.; 1/10 St.Cu., wsw.

TABLE 7.—*Free-air data from kite flights at Drexel Aerological Station, September, 1916*—Continued.

September 7, 1916 (No. 1).

Surface.						At different heights above sea.										
Time.	Pressure.	Temperature.	Relative humidity.	Wind.		Altitude.	Pressure.	Temperature.	$\frac{\Delta t}{100\ m.}$	Humidity.		Wind.		Potential.		Remarks.
				Dir.	Vel.					Rel.	Vap. pres.	Dir.	Vel.	Gravity.	Electric.	
A. M.	*mb.*	°*C.*	%		*m. p. s.*	*m.*	*mb.*	°*C.*		%	*mb.*		*m. p. s.*	10^5 *ergs.*	*volts.*	
7:23	967.0	17.2	88	n.	4.9	396	967.0	17.2	.....	88	17.27	n	4.9	388	.....	6/10 Ci. St., sw.; 3/10St., n.
						500	955.0	16.2	.....	91	16.76	n.	7.4	490	0	
7:27	967.1	17.0	90	n.	4.0	679	935.4	14.4	0.99	95	15.58	n.	11.7	666	0	St. base about 700 m.
						750	927.3	14.9	.....	90	15.25	n.	.....	735	0	
						1,000	901.1	16.6	.....	70	13.22	nnw.	.....	980	0	
8:31	968.3	18.0	84	n.	3.6	1,093	892.1	17.3	−0.70	63	12.44	nnw.	.....	1,072	0	9/10 St., n.
						1,250	876.0	17.5	.....	52	10.40	nnw.	.....	1,225	.....	
9:49	969.4	19.0	81	n.	3.1	1,448	857.0	17.8	−0.14	39	7.95	nnw.	.....	1,419	.....	
						1,500	851.5	17.4	.....	38	7.55	nnw.	.....	1,470	.....	
9:55	969.5	19.0	81	n.	3.1	1,526	849.0	17.2	0.77	38	7.46	nnw.	.....	1,496	.....	
						1,500	851.5	17.0	.....	40	7.75	nnw.	.....	1,470	.....	
						1,250	876.9	15.3	.....	59	10.25	nnw.	.....	1,225	.....	
						1,000	903.0	13.6	.....	78	12.15	nnw.	.....	980	0	
9:58	969.6	19.0	81	n.	3.1	968	906.5	13.4	26.15	80	12.30	nnw.	.....	949	0	
10:13	969.7	19.6	76	n.	3.1	955	908.1	16.8	−3.90	91	17.41	n.	6.7	936	0	
10:14	969.7	19.7	76	n.	3.1	850	919.4	12.7	1.48	97	14.25	n.	7.2	833	0	
						750	929.6	14.2	.....	92	14.89	n.	6.3	735	0	
						500	957.5	17.9	.....	81	16.61	n.	5.0	490	0	
10:27	969.7	19.4	76	n.	3.1	396	969.7	19.4	.....	76	17.12	n.	3.1	388	.....	1/10 Ci., sw.; 7/10 St., n.

September 7, 1916 (No. 2).

P. M.																
12:59	969.9	22.4	66	nnw.	4.5	396	969.9	22.4	.....	66	17.88	nnw.	4.5	388	.....	3/10 Ci., sw.; 2/10 A.Cu., wnw.;
						500	957.9	20.9	.....	69	17.06	nnw.	4.7	490	0	2/10 St., w.
						750	930.3	17.3	.....	79	15.60	nnw.	5.1	735	0	
1:32	969.9	21.8	68	n.	2.7	874	917.3	15.5	1.32	84	14.79	nnw.	5.3	857	0	
						750	930.3	17.0	.....	81	15.70	nnw.	4.6	735	0	
						500	957.9	20.0	.....	75	17.54	nnw.	3.3	490	0	2/10St.Cu., wnw.; 7/10 St., wnw.
3:04	969.6	21.2	73	nnw.	2.7	396	969.6	21.2	.....	73	18.38	nnw.	2.7	388	.....	Rain began 2.52 p. m.

September 8, 1916.

P. M.																
2:03	971.3	25.0	50	s.	4.0	396	971.3	25.0	.....	50	15.84	s.	4.0	388	.....	Cloudless.
						500	959.9	23.4	.....	52	14.97	sse.	4.8	490	0	
2:17	971.1	25.6	51	sse.	4.9	719	935.7	19.9	1.58	57	13.25	se.	6.6	705	0	
						750	932.2	19.6	.....	57	13.00	se.	6.7	735	0	
						1,000	905.7	16.9	.....	54	10.40	sse.	7.4	980	0	
3:02	970.6	25.4	49	sse.	3.6	1,228	881.1	14.5	1.06	52	8.59	sse.	8.0	1,204	0	
3:03	970.6	25.4	49	sse.	3.6	1,243	879.5	16.4	−12.67	41	7.65	sse.	8.0	1,219	0	
						1,250	879.0	16.4	.....	41	7.65	sse.	8.0	1,225	0	
						1,500	852.6	15.2	.....	40	6.91	s.	7.8	1,470	0	
						1,750	827.0	14.0	.....	38	6.07	s.	7.7	1,715	550	
						2,000	803.0	12.8	.....	36	5.32	ssw.	7.6	1,960	780	
						2,250	779.8	11.5	.....	35	4.75	ssw.	7.4	2,205	.....	
4:04	969.9	25.8	50	s.	3.1	2,429	763.6	10.6	0.52	34	4.35	sw.	7.3	2,380	.....	
						2,250	779.8	11.6	.....	32	4.37	ssw.	7.5	2,205	.....	
						2,000	803.0	13.0	.....	30	4.49	ssw.	7.8	1,960	680	
						1,750	827.0	14.4	.....	27	4.43	ssw.	8.0	1,715	610	
4:25	969.6	26.0	49	s.	3.6	1,518	850.8	15.7	−0.82	25	4.46	s.	8.3	1,488	380	
						1,500	852.6	15.6	.....	27	4.78	s.	8.1	1,470	350	
4:27	969.6	25.9	48	s.	4.5	1,300	873.1	13.9	1.18	46	7.30	s.	6.3	1,274	90	
						1,250	878.2	14.5	.....	46	7.59	s.	6.6	1,225	30	
						1,000	904.0	17.4	.....	49	9.74	sse.	8.4	980	0	
4:40	969.4	25.8	47	s.	7.6	764	929.2	20.2	1.52	51	12.08	sse.	10.0	749	0	
						750	930.8	20.4	.....	51	12.22	sse.	9.8	735	0	
						500	957.8	24.2	.....	50	15.10	s.	6.3	490	0	
4:47	969.4	25.8	49	s.	4.9	396	969.4	25.8	.....	49	16.28	s.	4.9	388	.....	Cloudless.

September 9, 1916.

A. M.																
7:20	968.1	18.0	91	s.	5.4	396	968.1	18.0	.....	91	18.78	s.	5.4	388	.....	1/10 Ci., wsw.; 2/10 Ci.St., wsw.
						500	956.0	17.9	.....	90	18.46	s.	6.6	490	0	
						750	928.0	17.6	.....	86	17.31	s.	9.6	735	0	
						1,000	901.8	17.4	.....	83	16.49	ssw.	12.6	980	400	
7:36	968.0	18.7	89	s.	6.7	1,238	877.6	17.2	0.10	80	15.70	ssw.	15.5	1,214	910	
						1,270	876.0	17.3	.....	78	15.40	ssw.	15.7	1,225	930	
						1,500	850.8	19.3	.....	39	8.94	ssw.	18.8	1,470	1,270	
7:52	967.9	19.4	86	s.	6.7	1,585	842.6	20.0	−0.81	26	6.08	ssw.	19.9	1,553	1,390	3/10 Ci., wsw.; 2/10 St.Cu., ssw.
						1,750	826.2	18.8	.....	24	5.21	ssw.	20.0	1,715	1,790	
						2,000	802.4	16.9	.....	21	4.04	ssw.	20.1	1,960	2,390	9/10 St.Cu., ssw.
8:45	967.7	20.9	79	s.	8.5	2,070	794.2	16.2	0.75	20	3.68	ssw.	20.1	2,048	2,600	
						2,270	779.0	15.2	.....	21	3.63	ssw.	19.4	2,205	2,850	
						2,500	756.3	13.6	.....	23	3.58	sw.	18.3	2,450	3,250	
8:55	967.6	20.8	80	s.	7.2	2,657	742.5	12.6	0.70	24	3.50	sw.	17.6	2,603	3,500	10/10 St.Cu., ssw.
						2,500	756.3	13.8	.....	24	3.79	sw.	17.9	2,450	3,080	
						2,250	779.0	15.7	.....	23	4.10	sw.	18.4	2,205	2,410	
						2,000	802.4	17.6	.....	22	4.43	ssw.	18.8	1,960	1,940	
						1,750	826.2	19.6	.....	22	5.02	ssw.	19.2	1,715	1,540	
						1,500	850.0	21.5	.....	21	5.39	ssw.	19.7	1,470	1,270	
9:49	967.3	21.3	78	s.	8.9	1,433	856.9	22.0	−4.69	21	5.55	ssw.	19.8	1,405	1,170	St.Cu. base about 900 m.
9:54	967.2	21.7	78	s.	7.6	1,273	872.9	14.5	6.62	34	5.61	ssw	18.6	1,248	1,020	
						1,250	875.0	16.0	.....	40	7.27	ssw.	19.1	1,225	1,000	
9:56	967.2	21.8	78	s.	7.6	1,196	880.8	19.6	−17.33	55	12.55	ssw.	20.3	1,172	950	
9:58	967.2	21.9	77	s.	7.6	1,166	884.0	14.4	0.48	89	14.60	ssw.	20.0	1,143	920	10/10 St.Cu., ssw.; altitude of
						1,000	900.8	15.2	.....	90	15.54	ssw.	17.5	980	460	St.Cu. base about 900 m.
10:12	967.1	22.0	78	s.	10.3	832	919.3	16.0	1.58	92	16.73	s.	15.0	816	0	
						750	927.4	17.3	.....	88	17.38	s.	13.7	735	0	
						500	955.2	21.3	.....	76	19.25	s.	9.7	490	0	
10:25	967.0	22.9	71	s.	8.0	396	967.0	22.9	.....	71	19.83	s.	8.0	388	.....	3/10 Ci.Cu., w.; 5/10 St.Cu., ssw.

TABLE 7.—*Free-air data from kite flights at Drexel Aerological Station, September, 1916*—Continued.

September 10, 1916 (No. 1).

Surface.						At different heights above sea.										Remarks.
Time.	Pressure.	Temperature.	Relative humidity.	Wind.		Altitude.	Pressure.	Temperature.	Δt / 100 m.	Humidity.		Wind.		Potential.		
				Dir.	Vel.					Rel.	Vap. pres.	Dir.	Vel.	Gravity.	Electric.	
A. M.	*mb.*	°*C.*	%		*m. p. s.*	*m.*	*mb.*	°*C.*		%	*mb.*		*m. p. s.*	*10⁵ ergs.*	*volts.*	
7:30	961.0	22.0	68	s.	5.8	396	961.0	22.0	.....	68	17.98	s.	5.8	388	.....	4/10 St.Cu., ssw
						500	949.5	21.1	.....	70	17.52	s.	8.4	490	0	
						750	922.2	19.0	.....	74	16.26	ssw.	14.7	735	0	
7:46	961.0	22.6	66	s.	5.4	1,001	895.9	16.9	0.84	78	15.02	ssw.	21.0	981	0	
8:02	961.1	23.0	62	s.	7.2	1,250	870.3	16.9	−0.28	84	16.17	ssw.	24.0	1,225	.....	3/10 St.Cu , ssw.
8:11	961.1	23.3	63	s.	8.0	1,126	883.1	16.2	1.01	82	15.10	ssw.	22.9	1,104	.....	
						1,000	896.0	17.5	.....	79	15.80	ssw.	20.3	980	.....	
						750	922.8	20.0	.....	72	16.83	s.	15.0	735	.....	
						500	950.0	22.5	.....	66	17.99	s.	9.8	490	.....	
8:24	961.1	23.6	63	s.	7.6	396	961.1	23.6	.....	63	18.35	s.	7.6	388	.....	2/10 A.Cu., ssw.

September 10, 1916 (No. 2).

A. M.																
9:13	961.2	24.4	62	s.	8.0	396	961.2	24.4	.....	62	18.95	s.	8.0	388	.....	Few A.Cu., sw.
						500	949.5	23.1	.....	66	18.66	s.	9.4	490	0	
						750	922.5	19.9	.....	76	17.66	ssw.	12.7	735	0	
9:21	961.2	24.7	62	s.	12.1	848	912.4	18.7	1.26	80	17.26	ssw	14.0	831	0	
						1,000	896.0	17.9	.....	82	16.82	ssw.	14.7	980	80	
						1,250	869.5	16.5	.....	85	15.95	sw.	15.8	1,225	270	
						1,500	844.6	15.2	.....	88	15.20	sw.	16.9	1,470	740	
						1,750	820.8	13.8	.....	91	14.36	wsw	18.0	1,715	1,120	
9:58	961.5	25.7	59	s.	8.5	1,943	802.8	12.8	0.54	93	13.75	w.	18.9	1,904	1,205	
						2,000	797.3	13.1	.....	87	13.12	w.	19.1	1,960	1,240	
						2,250	774.0	14.2	.....	61	9.88	wsw.	20.2	2,205	1,410	
10:07	961.5	26.0	60	s.	8.5	2,309	768.8	14.5	0.46	55	9.08	wsw	20.5	2,263	1,450	7/10 St.Cu., sw.
						2,500	751.3	13.0	.....	58	8.69	wsw.	20.3	2,450	1,580	St.Cu. base about 1,700 m.
						2,750	729.3	11.0	.....	62	8.14	sw.	20.0	2,694	1,750	
						3,000	707.8	8.9	.....	65	7.41	sw.	19.6	2,939	2,180	
10:25	961.6	26.1	59	ssw.	9.8	3,006	707.4	8.9	0.70	65	7.41	sw.	19.6	2,945	2,200	9/10 St.Cu., sw.
						3,000	707.8	8.9	.....	65	7.41	sw.	19.5	2,939	2,190	
						2,750	729.3	10.4	.....	64	8.07	sw.	16.8	2,694	1,800	
						2,500	751.5	11.9	.....	64	8.92	sw.	14.1	2,450	1,400	
						2,250	774.2	13.4	.....	63	9.68	sw.	11.4	2,205	1,000	
11:01	961.8	26.6	61	ssw.	7.2	2,062	791.9	14.5	−1.12	62	10.24	sw.	9.3	2,021	730	
						2,000	797.8	13.8	.....	71	11.20	sw.	9.4	1,960	650	
11:04	961.8	26.7	60	ssw.	7.2	1,802	816.8	11.6	0.98	100	13.66	wsw.	9.8	1,766	370	10/10 St.Cu., sw.
						1,750	821.7	12.1	.....	98	13.84	wsw.	9.9	1,715	300	
						1,500	845.9	14.6	.....	89	14.79	wsw	10.3	1,479	0	
						1,250	871.1	17.0	.....	81	15.70	sw.	10.7	1,225	0	
						1,000	897.3	19.5	.....	72	16.32	sw.	11.1	980	0	
11:32	961.8	26.8	58	ssw.	9.4	781	920.4	21.6	1.35	64	16.51	sw.	11.5	766	0	
						750	923.7	22.0	.....	64	16.92	sw.	11.2	735	0	
						500	950.2	25.4	.....	60	19.47	sw.	8.4	490	0	
11:40	961.8	26.8	59	sw.	7.2	396	961.8	26.8	.....	59	20.79	sw.	7.2	388	.....	10/10 St.Cu., sw.

September 11, 1916.

A. M.																
9:08	973.3	15.2	67	ne.	3.6	396	973.3	15.2	.....	67	11.57	ne.	3.6	388	.....	9/10 St., sw.
						500	961.0	14.6	.....	60	9.97	ne.	6.0	490	0	
						750	933.4	13.2	.....	42	6.37	ne.	11.8	735	0	
9:18	973.4	15.2	67	ne.	4.0	811	926.7	12.8	0.58	38	5.62	ne.	13.2	735	0	
						1,000	906.0	12.8	.....	37	5.47	ne.	12.2	980	0	
						1,250	879.0	12.7	.....	36	5.29	ne.	11.0	1,225	0	
9:30	973.4	15.4	67	ne.	2.7	1,258	878.7	12.7	0.02	36	5.29	ne.	10.9	1,233	0	
						1,500	853.0	11.2	.....	41	5.45	ne.	9.2	1,470	0	
						1,750	828.3	9.7	.....	47	5.65	ene.	7.5	1,715	630	
11:03	974.0	18.0	55	ne.	3.6	1,985	806.1	8.3	0.61	52	5.69	ene.	5.9	1,945	.....	4/10 A.Cu., sw.; 3/10 St., sw.
						2,000	805.0	8.3	.....	54	5.91	ene.	5.8	1,960	.....	
11:12	973.9	19.2	54	nne.	3.1	2,225	783.0	8.6	−0.13	76	8.49	e.	4.3	2,180	.....	
						2,000	805.0	8.3	.....	59	6.46	ene.	5.1	1,960	.....	
11:22	973.7	18.9	54	ne.	3.1	1,822	821.7	8.0	0.85	46	4.94	ne.	5.8	1,786	660	2/10 Ci.St., sw.; 2/10 A.Cu., sw.;
						1,750	829.0	8.6	.....	45	5.03	ne.	6.3	1,715	650	3/10 St.Cu., sw.
						1,500	854.0	10.8	.....	40	5.18	ne.	8.1	1,470	620	
						1,250	880.0	12.9	.....	35	5.21	ne.	9.9	1,225	590	
11:30	973.6	18.5	53	ene.	3.1	1,233	881.8	13.0	−2.15	35	5.24	ne.	10.0	1,209	590	
11:47	973.5	18.9	51	ne.	3.6	1,126	893.0	10.7	1.11	43	5.53	ne.	5.8	1,104	0	1/10 Ci.St., sw.; 3/10 A.Cu., sw.;
						1,000	906.0	12.1	.....	44	6.21	ne.	5.3	980	0	4/10 St.Cu., sw.
						750	933.4	14.8	.....	47	7.91	ne.	4.4	735	0	
						500	961.0	17.6	.....	50	10.03	ne.	3.5	490	0	
11:59	973.3	18.8	51	ne.	3.1	396	973.3	18.8	.....	51	11.07	ne.	3.1	388	.....	5/10 St.Cu., sw.; 5/10 St., sw.

September 12, 1916.

A. M.																
7:58	971.3	12.0	89	nw.	2.7	396	971.3	12.0	.....	89	12.49	nw.	2.7	388	.....	7/10 St.Cu., wnw.
						500	959.0	10.7	.....	88	11.33	nw.	4.8	490	0	
8:16	971.4	12.4	89	nw.	3.1	711	935.5	8.2	1.21	85	9.24	nw.	9.0	697	0	St.Cu. base about 700 m.
						750	931.2	7.9	.....	86	9.16	nw.	9.2	735	80	
						1,000	903.5	6.3	.....	94	8.98	wnw.	10.8	980	580	
8:46	971.5	13.2	84	nw.	3.6	1,205	881.0	4.9	0.67	100	8.66	wnw.	12.1	1,181	900	8/10 St.Cu., wnw.
						1,250	876.0	4.9	.....	97	8.40	wnw.	12.2	1,225	970	
						1,500	849.4	5.1	.....	83	7.30	wnw.	12.6	1,470	1,480	
						1,750	823.8	5.3	.....	69	6.15	wnw.	12.9	1,715	1,860	
9:15	971.6	14.0	80	wnw.	4.0	1,893	809.9	5.4	−0.07	61	5.47	wnw.	13.1	1,855	2,080	6/10 St.Cu., wnw.
						2,000	799.0	4.9	.....	59	5.11	wnw.	13.9	1,960	2,250	
						2,250	775.2	3.6	.....	56	4.43	w.	15.7	2,205	2,620	
9:27	971.6	14.1	79	wnw.	5.4	2,421	759.3	2.7	0.51	53	3.93	w.	16.9	2,372	2,860	
						2,500	752.0	2.6	.....	51	3.76	w.	17.0	2,450	2,970	
						2,750	729.0	2.2	.....	44	3.15	w.	17.3	2,694	3,320	
						3,000	706.5	1.8	.....	36	2.51	w.	17.6	2,939	3,470	
						3,250	685.0	1.4	.....	29	1.96	w.	17.9	3,184	4,030	8/10 St.Cu., wnw.
						3,500	664.2	1.1	.....	22	1.46	w.	18.2	3,429	4,550	

TABLE 7.—*Free-air data from kite flights at Drexel Aerological Station, September, 1916*—Continued.

September 12, 1916—Continued.

Surface.						At different heights above sea.										
Time.	Pressure.	Temperature.	Relative humidity.	Wind.		Altitude.	Pressure.	Temperature.	$\frac{\Delta t}{100\ m.}$	Humidity.		Wind.		Potential.		Remarks.
				Dir.	Vel.					Rel.	Vap. pres.	Dir.	Vel.	Gravity.	Electric.	
A. M.	*mb.*	*° C.*	*%*		*m. p. s.*	*m.*	*mb.*	*° C.*		*%*	*mb.*		*m. p. s.*	*10^3 ergs.*	*volts.*	
10:36	971.6	15.6	72	w.	4.0	3,691	648.8	0.8	0.22	17	1.10	w.	18.4	3,615	.....	Water on wire.
						3,500	664.2	1.3	.....	20	1.34	w.	17.7	3,429	4,540	
						3,250	685.0	3.0	.....	24	1.69	w.	16.8	3,184	4,080	
						3,000	706.5	2.7	.....	29	2.15	w.	15.9	2,939	3,610	
						2,750	729.0	3.4	.....	34	2.65	w.	15.0	2,694	3,190	
11:24	971.3	16.4	66	wnw.	4.9	2,501	751.7	4.1	−0.98	38	3.11	w.	14.2	2,451	2,800	
11:31	971.2	17.2	68	wnw.	4.9	2,247	775.9	1.6	0.54	66	4.53	w.	17.0	2,202	2,400	
						2,000	799.0	2.9	.....	70	5.27	w.	16.5	1,960	1,980	
						1,750	823.8	4.3	.....	75	6.23	wnw.	15.9	1,715	1,550	
						1,500	849.4	5.6	.....	80	7.28	wnw.	15.3	1,470	1,060	
						1,250	876.0	7.0	.....	84	8.42	nw.	14.7	1,225	370	
11:58	970.9	16.4	64	wnw.	6.7	1,118	890.6	7.7	1.09	86	9.04	nw.	14.4	1,096	0	
						1,000	903.4	9.0	.....	82	9.41	nw.	13.1	980	0	
						750	931.0	11.8	.....	72	9.96	nw.	10.2	735	0	
P. M.																
12:09	970.8	17.4	63	wnw.	5.4	723	933.9	12.0	1.71	71	9.96	nw.	10.0	709	0	
						500	958.5	15.8	.....	63	11.31	wnw.	6.9	490	0	
12:17	970.7	17.6	59	wnw.	5.4	396	970.7	17.6	.....	59	11.88	wnw.	5.4	388	0	8/10 St.Cu., wnw.

September 13, 1916.

A. M.																
7:30	973.2	13.2	82	sw.	3.6	396	973.2	13.2	.....	82	12.44	sw.	3.6	388	.....	Cloudless.
						500	961.4	14.7	.....	68	11.38	sw.	5.3	490	0	
7:40	973.2	13.3	84	sw.	3.6	732	935.4	18.0	−1.43	38	7.84	sw.	9.0	718	0	
						750	933.5	17.9	.....	38	7.79	sw.	9.0	735	0	
						1,000	905.1	16.0	.....	41	7.45	sw.	8.6	980	0	
						1,250	879.4	14.1	.....	44	7.08	wsw.	8.3	1,225	.....	
8:08	973.3	14.4	80	sw.	4.5	1,461	858.6	12.5	0.75	47	6.81	wsw.	8.0	1,432	515	
						1,500	854.5	12.3	.....	47	6.73	wsw.	8.0	1,470	90	
10:55	973.0	22.2	52	s.	4.9	1,711	835.0	11.0	0.60	47	6.17	w.	8.0	1,677	1,140	
						1,750	831.0	10.8	.....	47	6.09	w.	7.9	1,715	1,130	
						2,000	806.5	9.3	.....	46	5.39	wsw.	7.0	1,960	.....	
P. M.																
12:09	972.2	23.4	44	ssw.	7.2	2,224	784.0	7.9	0.71	45	4.79	wsw.	6.2	2,180	.....	
						2,000	806.5	9.7	.....	44	45.29	wsw.	5.9	1,960	.....	
						1,750	831.0	11.8	.....	43	45.95	sw.	5.6	1,715	1,130	
						1,500	854.5	13.9	.....	42	6.67	sw.	5.4	1,470	1,040	
12:32	971.9	23.6	44	ssw.	7.6	1,363	868.2	15.0	0.64	42	7.16	sw.	5.2	1,336	610	
						1,250	879.4	15.7	.....	44	7.85	ssw.	5.7	1,225	190	
						1,000	905.1	17.3	.....	48	9.48	ssw.	6.9	980	0	
						750	932.0	18.9	.....	52	11.36	s.	8.1	735	0	
12:50	971.7	23.7	44	ssw.	6.3	725	935.4	19.1	1.43	52	11.50	s.	8.2	711	0	
						500	960.0	22.3	.....	46	12.39	ssw.	8.1	490	0	
12:55	971.7	23.8	43	ssw.	8.0	396	971.7	23.8	.....	43	12.68	ssw.	8.0	388	.....	Cloudless.

September 14, 1916.

A. M.																
8:02	979.1	9.0	80	nnw.	4.9	396	979.1	9.0	.....	80	9.18	nnw.	4.9	388	.....	8/10 St.Cu., W.: few St.Cu., n.
						500	966.8	8.0	.....	82	8.80	nnw.	7.7	490	.....	
						750	937.5	5.4	.....	86	7.71	nnw.	14.3	735	.....	
8:12	979.1	9.3	82	nw.	3.1	812	930.9	4.8	1.01	87	7.48	nnw.	16.0	796	0	
						1,000	909.0	3.9	.....	76	6.14	nnw.	16.8	980	290	
						1,250	881.5	2.8	.....	60	4.48	nnw.	17.8	1,225	720	
						1,500	855.0	1.6	.....	45	3.09	nnw.	18.8	1,470	1,330	
8:43	979.1	10.9	69	nnw.	7.2	1,617	843.0	1.1	0.46	38	2.52	nnw.	19.3	1,585	1,510	
						1,750	828.8	0.9	.....	35	2.28	nnw.	18.5	1,715	1,710	
						2,000	803.0	0.6	.....	30	1.91	nnw.	17.0	1,960	2,100	
						2,250	779.0	0.4	.....	24	1.51	nnw.	15.4	2,205	2,500	
9:08	979.1	11.6	57	nnw.	8.0	2,472	758.1	0.1	0.12	19	1.17	nnw.	14.0	2,422	2,870	
						2,500	755.3	0.5	.....	19	1.20	nnw.	14.4	2,450	2,910	
9:10	979.2	11.6	57	nnw.	8.0	2,584	747.5	1.6	1.34	20	1.37	nw.	15.5	2,532	3,050	
						2,750	732.5	0.8	.....	33	2.14	wnw.	17.0	2,694	3,360	
						3,000	709.9	−0.4	.....	52	3.07	wnw.	19.2	2,939	4,140	
						3,250	688.0	−1.7	.....	71	3.76	w.	21.5	3,184	4,920	
9:47	979.3	11.4	56	nnw.	5.4	3,309	683.1	−2.0	0.50	75	3.88	w.	22.0	3,242	5,100	5/10 St.Cu., w.: few St.Cu., n.
						3,500	666.1	−2.5	.....	50	2.48	w.	22.4	3,429	6,000	
						3,750	645.0	−3.1	.....	16	0.75	w.	22.9	3,673	.....	
10:27	979.4	12.4	45	nnw.	8.0	3,757	645.1	−3.1	0.29	16	0.75	w.	22.9	3,680	.....	
						3,750	645.0	−3.1	.....	16	0.75	w.	22.9	3,673	.....	
						3,500	666.0	−2.2	.....	14	0.71	w.	22.2	3,429	6,170	
						3,250	687.0	−1.4	.....	11	0.60	w.	21.6	3,184	5,400	
10:55	979.4	12.9	46	nnw.	7.2	3,212	690.4	−1.3	−1.18	11	0.60	w.	21.5	3,147	5,280	4/10 St.Cu., w.
10:58	979.4	12.8	46	nnw.	6.7	3,093	700.7	−2.7	0.12	11	0.54	w.	20.2	3,030	4,920	
						3,000	708.8	−2.6	.....	11	0.54	w.	19.8	2,939	4,630	
						2,750	731.8	−2.3	.....	12	0.60	wnw.	18.6	2,694	3,870	
						2,500	755.3	−2.0	.....	12	0.62	wnw.	17.3	2,450	3,370	
						2,250	779.5	−1.7	.....	13	0.69	nw.	16.1	2,205	2,960	
11:27	979.4	13.0	44	nnw.	6.3	2,095	794.6	−1.5	0.68	13	0.70	nnw.	15.4	2,053	2,700	
						2,000	804.0	−0.9	.....	14	0.79	nnw.	15.6	1,960	2,550	
11:37	979.4	13.3	45	nnw.	4.9	1,757	828.9	0.8	−2.38	15	0.97	nnw.	16.2	1,722	2,150	
						1,750	829.5	0.6	.....	15	0.96	nnw.	15.9	1,715	2,140	
11:41	979.4	13.4	45	nnw.	4.9	1,652	839.9	−1.7	1.15	19	1.01	nnw.	11.0	1,619	1,980	
						1,500	855.8	0.0	.....	31	1.89	nnw.	10.8	1,470	1,730	
						1,250	882.5	2.9	.....	52	3.92	nnw.	10.5	1,225	1,020	
11:59	979.4	13.3	44	nw.	6.3	1,076	902.0	4.9	1.15	66	5.72	nnw.	10.3	1,055	490	
						1,000	910.0	5.8	.....	62	5.72	nnw.	10.7	980	340	
P. M.																
12:09	979.3	14.1	41	nnw.	6.7	833	929.3	7.7	1.42	53	5.57	nnw.	11.5	817	0	
						750	938.1	8.9	.....	51	5.81	nnw.	10.8	735	0	
						500	966.8	12.4	.....	45	6.48	nnw.	8.8	490	0	
12:19	979.2	13.9	43	nnw.	8.0	396	979.2	13.9	.....	43	6.83	nnw.	8.0	388	.....	1/10 St. Cu., w.

TABLE 7.—*Free-air data from kite flights at Drexel Aerological Station, September, 1916*—Continued.

September 15, 1916.

Surface.						At different heights above sea.										Remarks.
Time.	Pressure.	Temperature.	Relative humidity.	Wind.		Altitude.	Pressure.	Temperature.	$\frac{\Delta t}{100\ m.}$	Humidity.		Wind.		Potential.		
				Dir.	Vel.					Rel.	Vap. pres.	Dir.	Vel.	Gravity.	Electric.	
A. M.	*mb.*	*°C.*	*%*		*m. p. s.*	*m.*	*mb.*	*°C.*		*%*	*mb.*		*m. p. s.*	*10^5 ergs.*	*volts.*	
10:56	979.1	12.0	46	n.	3.6	396	979.1	12.0	.....	46	6.45	n.	3.6	388	.....	1/10 Ci., wnw.; few Cu., nw.
						500	966.5	10.8	.....	46	5.96	nnw.	4.2	490	0	
						750	937.3	7.9	.....	45	4.79	nnw.	5.8	735	480	
11:59	978.4	13.2	45	nnw.	3.6	849	926.5	6.7	1.17	45	4.41	nw.	6.4	832	700	
						1,000	909.0	5.1	.....	46	4.13	nw.	7.7	980	1,050	
						1,250	881.2	3.4	.....	48	3.74	nw.	9.8	1,225	1,630	
						1,500	855.0	1.3	.....	51	3.42	nw.	11.8	1,470	2,110	
P. M.																
12:16	978.2	13.6	37	nnw.	3.6	1,670	837.3	−0.1	0.83	52	3.15	nw.	13.2	1,637	2,320	
						1,750	829.0	−3.0	.....	53	3.03	nw.	14.2	1,715	2,420	
						2,000	803.2	−3.0	.....	57	2.71	wnw.	17.2	1,960	2,730	
12:35	978.0	13.8	36	nnw.	3.1	2,124	790.8	−4.1	0.88	59	2.55	wnw.	18.7	2,082	3,100	
						2,250	778.2	−4.8	.....	56	2.28	wnw.	18.6	2,205	3,280	
						2,500	753.8	−6.3	.....	49	1.76	wnw.	18.4	2,450	3,890	
						2,750	730.0	−7.8	.....	43	1.35	w.	18.1	2,694	4,500	
						3,000	706.5	−9.3	.....	36	0.99	w.	17.9	2,939	.....	
1:11	977.6	13.9	35	nw.	4.5	3,085	698.8	−9.8	0.61	34	0.90	w.	17.8	3,022	.....	2/10 Ci., wnw.; few Cu., w.
						3,000	706.5	−9.3	.....	33	0.91	w.	17.4	2,939	.....	
						2,750	729.8	−7.7	.....	30	0.95	w.	16.3	2,694	4,790	
						2,500	753.5	−6.2	.....	28	1.01	w.	15.3	2,450	4,120	
						2,250	777.8	−4.6	.....	25	1.04	w.	14.2	2,205	3,440	
1:50	977.1	14.4	34	nw.	4.5	2,240	778.6	−4.5	0.87	25	1.05	w.	14.2	2,195	3,420	
						2,000	802.9	−2.4	.....	32	1.60	wnw.	12.5	1,960	2,650	
						1,750	828.2	−0.2	.....	39	2.34	wnw.	10.6	1,715	1,730	
						1,500	854.5	2.0	.....	46	3.25	wnw.	8.8	1,480	820	
2:18	976.9	15.7	33	wnw.	3.1	1,277	878.4	3.9	1.31	52	4.20	nw.	7.2	1,252	0	
						1,250	881.0	4.3	.....	51	4.24	nw.	7.1	1,225	0	
						1,000	907.3	7.5	.....	46	4.77	nw.	6.6	980	0	
						750	935.0	10.8	.....	41	5.31	nw.	6.1	735	0	
						500	964.4	14.0	.....	36	5.75	nw.	5.6	490	0	
:39	976.8	15.4	34	nw.	5.4	396	976.8	15.4	.....	34	5.95	nw.	5.4	388	.....	1/10 Ci., wnw.; 1/10 Cu., w.

September 16, 1916 (No. 1).

A. M.																
7:27	969.6	10.9	63	ssw.	10.3	396	969.6	10.9	.....	63	8.22	ssw.	10.3	388	.....	Cloudless.
						500	957.5	10.7	.....	60	7.72	sw.	13.7	490	0	
						750	929.5	10.1	.....	54	6.67	wsw.	22.0	735	120	
7:39	969.6	11.3	63	sw.	6.7	794	924.4	10.0	0.23	53	6.51	wsw.	23.4	779	240	
7:53	969.6	12.0	61	sw.	6.7	1,000	901.9	13.2	−1.27	37	5.61	wsw.	28.0	980	0	
						750	929.5	10.7	.....	39	5.02	wsw.	19.6	735	0	
8:25	969.4	13.5	54	sw.	8.0	707	934.0	10.3	1.06	39	4.89	wsw.	18.2	693	0	
						500	957.5	12.5	.....	48	6.96	sw.	11.4	490	0	
8:27	969.4	13.6	53	sw.	8.0	396	969.4	13.6	.....	53	8.26	sw.	8.0	388	.....	Cloudless.

September 16, 1916 (No. 2).

P. M.																
12:32	968.2	21.8	31	w.	5.8	396	968.2	21.8	.....	31	8.10	w.	5.8	388	.....	Cloudless.
						500	956.2	20.5	.....	31	7.48	w.	5.9	490	0	
						750	929.0	17.5	.....	30	6.00	w.	6.1	735	0	
1:03	968.2	22.9	28	w.	4.9	764	927.7	17.3	1.22	30	5.93	w.	6.1	749	0	
						1,000	901.8	15.0	.....	32	5.46	w.	6.2	980	0	
						1,250	875.5	12.5	.....	34	4.93	w.	6.4	1,225	710	
2:13	967.8	23.4	26	wnw.	5.8	1,426	857.4	10.8	0.98	35	4.53	w.	6.5	1,398	970	Few A.Cu., w.
						1,500	849.8	10.1	.....	36	4.45	w.	7.3	1,470	1,080	
						1,750	824.2	7.7	.....	39	4.10	w.	9.9	1,715	1,450	
						2,000	799.7	5.3	.....	42	3.74	wnw.	12.5	1,960	1,810	
2:55	967.6	23.8	29	w.	5.4	2,115	788.5	4.2	0.96	43	3.55	wnw.	13.7	2,073	1,985	
						2,000	799.7	5.3	.....	42	3.74	wnw.	12.4	1,960	1,670	1/10 A.Cu., w.
						1,750	824.2	7.7	.....	40	4.20	wnw.	9.5	1,715	980	
						1,500	849.8	10.1	.....	39	4.82	nw.	6.6	1,470	.....	
3:18	967.6	23.6	26	nw.	4.0	1,272	873.3	12.3	1.38	37	5.29	nw.	4.0	1,247	.....	
						1,250	875.5	12.6	.....	37	5.40	nw.	3.9	1,225	.....	
						1,000	901.8	16.1	.....	34	6.22	nw.	2.7	980	.....	
3:26	967.6	23.7	26	nw.	3.6	924	910.0	17.1	1.21	33	6.44	nw.	2.3	906	.....	
						750	929.0	19.2	.....	31	6.90	wnw.	2.7	735	.....	
						500	956.2	22.2	.....	27	7.23	wnw.	3.3	490	.....	
3:35	967.6	23.5	26	w.	3.6	396	967.6	23.5	.....	26	7.53	w.	3.6	388	.....	1/10 A.Cu., w.

September 17, 1916.

P. M.																
3:40	977.1	15.8	35	n.	4.0	396	977.1	15.8	.....	35	6.28	n.	4.0	388	.....	Cloudless.
						500	965.1	14.6	.....	36	5.98	n.	4.4	490	.....	
						750	937.1	11.8	.....	37	5.12	n.	5.4	735	.....	
3:55	977.0	15.7	35	n.	4.0	781	933.2	11.4	1.09	37	4.99	n.	5.5	766	.....	
						750	937.0	11.7	.....	37	5.09	n.	5.4	735	.....	
						500	965.1	14.3	.....	37	6.03	nne.	4.4	490	.....	
4:45	977.0	15.4	37	nne.	4.0	396	977.0	15.4	.....	37	6.48	nne.	4.0	388	.....	Cloudless.

TABLE 7.—*Free-air data from kite flights at Drexel Aerological Station, September, 1916*—Continued.

September 18, 1916 (No. 1).

Surface.						At different heights above sea.										
Time.	Pressure.	Temperature.	Relative humidity.	Wind.		Altitude.	Pressure.	Temperature.	$\frac{\Delta t}{100\ m.}$	Humidity.		Wind.		Potential.		Remarks.
				Dir.	Vel.					Rel.	Vap. pres.	Dir.	Vel.	Gravity.	Electric.	
A. M.	*mb.*	*° C.*	*%*		*m. p. s.*	*m.*	*mb.*	*° C.*		*%*	*mb.*		*m. p. s.*	*10^5 ergs.*	*volts.*	
7:26	979.4	8.7	55	ssw.	4.0	396	979.4	8.7	.....	55	6.19	ssw.	4.0	388	.....	4/10 Ci., wnw.
						500	967.2	9.6	.....	50	5.98	ssw.	6.0	490	0	
7:30	979.4	9.0	55	s.	5.4	650	950.0	11.1	−0.94	44	5.81	s.	9.0	637	0	
						750	938.9	11.1	.....	44	5.81	s.	7.7	735	0	
8:02	979.4	10.3	51	s.	4.0	950	916.3	11.1	0.00	44	5.81	ssw.	5.1	931	0	3/10 Ci., wnw.; 1/10 A.Cu., wsw.
						1,000	910.5	10.9	.....	45	5.87	sw.	4.9	980	0	
8:36	979.4	11.6	47	s.	4.9	1,250	883.5	9.7	.....	48	5.77	wsw.	4.2	1,225	0	Few Ci., wnw.; 1/10 A. Cu., wsw.
						1,504	857.3	8.4	0.48	51	5.62	w.	3.4	1,474	0	
8:48	979.4	12.8	45	s.	5.4	1,250	883.5	9.6	.....	51	6.09	sw.	6.9	1,225	0	
						1,023	908.3	10.7	−0.22	51	6.56	ssw.	10.0	1,003	0	
						1,000	910.5	10.7	.....	51	6.56	ssw.	10.0	980	0	
						750	938.9	10.1	.....	47	5.81	s.	9.5	735	0	
8:51	979.4	12.8	45	s.	4.9	651	950.0	9.9	1.14	45	5.49	s.	9.3	638	0	
						500	967.2	11.6	.....	45	6.15	s.	6.7	490	0	
8:53	979.4	12.8	45	s.	4.9	396	979.4	12.8	.....	45	6.65	s.	4.9	388	.....	Cloudless.

September 18, 1916 (No. 2).

A. M.																
8:57	979.4	13.0	43	s.	6.7	396	979.4	13.0	.....	43	6.44	s.	6.7	388	.....	Cloudless.
						500	967.1	11.9	.....	43	5.99	s.	7.9	490	0	
9:01	979.4	13.0	44	s.	6.7	721	942.0	9.5	1.08	44	5.22	s.	10.5	707	0	
						750	938.6	10.0	.....	44	5.40	s.	10.2	735	0	
9:03	979.4	13.1	43	s.	6.7	806	932.4	11.1	−1.88	43	5.68	s.	9.5	790	0	
						1,000	910.5	10.3	.....	46	5.76	ssw.	.....	980	620	
						1,250	883.4	9.2	.....	49	5.70	sw.	.....	1,225	1,770	
						1,500	857.2	8.2	.....	52	5.65	sw.	.....	1,470	1,190	
11:01	979.4	17.4	57	s.	7.2	1,684	839.9	7.4	0.45	55	5.66	wsw.	.....	1,651	.....	
						1,500	857.2	8.3	.....	53	5.80	wsw.	.....	1,470	1,260	
11:55	978.5	18.6	37	ssw.	8.5	1,373	870.0	8.9	.....	32	5.93	wsw.	5.5	1,346	1,780	
						1,500	857.2	8.4	.....	34	5.95	wsw.	4.6	1,470	.....	
						1,750	831.5	7.4	.....	37	5.87	sw.	2.8	1,715	.....	
P. M.																
12:44	977.7	19.5	39	ssw.	6.7	1,774	829.0	7.3	0.58	37	5.83	sw.	2.6	1,739	.....	
						1,750	831.5	7.5	.....	37	5.91	sw.	2.7	1,715	.....	
						1,500	857.2	9.4	.....	54	6.37	sw.	3.8	1,470	.....	
						1,250	883.4	11.2	.....	51	6.78	ssw.	4.8	1,225	.....	
						1,000	910.2	13.1	.....	48	7.24	ssw.	5.9	980	.....	
1:12	977.3	20.5	35	ssw.	4.5	871	924.3	14.1	1.39	46	7.40	ssw.	6.5	854	.....	
						750	937.6	15.8	.....	43	7.72	ssw.	6.0	735	.....	
						500	965.3	19.3	.....	37	8.28	sw.	4.9	490	.....	
1:23	977.2	20.7	35	sw.	4.5	396	977.2	20.7	.....	35	8.55	sw.	4.5	388	.....	Cloudless.

September 19, 1916, series (No. 1).

A. M.																
7:27	972.5	12.8	61	s.	4.9	396	972.5	12.8	.....	61	9.02	s.	4.9	388	.....	
7:28	972.5	12.8	61	s.	4.9	418	970.0	11.8	4.55	60	8.30	s.	16.8	910	0	
						500	960.2	12.5	.....	60	8.59	s.	17.3	490	0	
						750	932.5	14.5	.....	59	9.74	s.	18.9	735	0	
7:36	972.4	13.1	60	s.	4.5	774	929.8	14.7	−1.13	59	9.87	s.	19.0	759	0	
						1,000	904.9	13.4	.....	63	9.88	ssw.	15.8	980	560	6/10 St.Cu., w.
7:50	972.4	13.6	58	s.	4.5	1,221	881.8	12.2	0.56	67	9.52	sw.	12.7	1,197	1,105	
						1,250	878.8	12.3	.....	68	9.73	sw.	12.3	1,225	1,170	
						1,500	853.1	12.7	.....	74	10.87	sw.	9.0	1,470	1,620	
8:05	972.3	14.8	57	ssw.	6.3	1,531	849.9	12.8	−0.19	75	11.08	sw.	8.6	1,501	1,640	
						1,750	828.0	11.4	.....	73	9.84	sw.	8.1	1,715	1,950	
8:18	972.2	15.1	56	ssw.	7.2	1,990	804.6	9.9	0.63	70	8.54	sw.	7.6	1,950	2,300	5/10 St.Cu., w.
						2,000	803.4	9.8	.....	70	8.48	sw.	7.7	1,960	2,320	
						2,250	779.4	7.9	.....	71	7.56	sw.	10.1	2,205	2,700	
8:42	972.1	15.7	54	ssw.	6.7	2,410	764.9	6.9	0.71	71	7.06	sw.	11.4	2,362	2,980	
						2,500	756.0	6.0	.....	72	6.73	sw.	11.6	2,450	3,210	
						2,750	733.0	3.5	.....	74	5.81	sw.	12.3	2,694	3,840	
						3,000	710.6	1.1	.....	76	5.03	wsw.	13.0	2,939	4,470	
9:26	971.7	17.0	51	sw.	7.2	3,177	695.7	− 0.7	0.99	78	4.49	wsw.	13.5	3,112	4,910	
9:29	971.7	17.2	51	sw.	7.2	3,244	689.9	− 0.1	−0.89	48	2.91	wsw.	13.5	3,178	5,080	
						3,250	689.1	− 0.1	.....	48	2.91	wsw.	13.5	3,184	5,100	
						3,500	667.9	− 1.5	.....	39	2.10	wsw.	12.9	3,429	5,860	
						3,750	647.2	− 3.0	.....	31	1.47	w.	12.4	3,673	6,640	2/10 A.Cu., w.
						4,000	627.0	− 4.3	.....	23	0.98	w.	11.9	3,918	.....	
10:21	971.1	19.9	51	ssw.	6.7	4,164	614.4	− 5.3	0.58	17	0.66	w.	11.5	4,078	.....	
						4,000	627.0	− 4.3	.....	16	0.68	w.	12.1	3,918	.....	
						3,750	647.0	− 2.9	.....	15	0.72	w.	13.0	3,673	5,200	
						3,500	667.0	− 4.3	.....	23	0.98	w.	11.9	3,918	4,980	Few A.Cu. w.
11:13	970.3	21.7	47	sw.	6.7	3,440	672.7	− 1.1	0.08	14	0.78	w.	14.1	3,370	4,850	
11:15	970.2	21.9	46	sw.	8.0	3,321	682.8	− 1.0	0.66	33	1.85	w.	13.6	3,253	4,600	
						3,250	688.8	− 0.5	.....	48	2.81	w.	14.3	3,184	4,440	
11:23	970.1	22.3	48	sw.	7.6	3,092	702.8	0.5	1.07	81	5.13	w.	15.7	3,029	4,100	Few A.Cu., w.
						3,000	710.6	1.5	.....	80	5.45	w.	15.5	2,939	3,870	
						2,750	733.0	4.3	.....	78	6.48	w.	14.8	2,694	3,230	
						2,500	756.0	7.0	.....	76	7.61	w.	14.2	2,450	2,600	
11:36	969.8	22.9	46	ssw.	7.2	2,421	763.4	7.9	0.83	75	7.99	w.	14.0	2,372	2,400	
						2,250	779.2	9.3	.....	73	8.56	w.	13.5	2,205	2,140	
						2,000	802.1	11.4	.....	70	9.44	w.	12.8	1,960	1,770	
						1,750	826.0	13.5	.....	67	10.36	w.	12.0	1,715	1,390	
						1,500	851.2	15.6	.....	63	11.16	w.	11.3	1,470	1,090	
11:54	969.3	23.0	45	ssw.	8.0	1,470	854.6	15.8	−1.16	63	11.31	sw.	11.2	1,441	1,060	Few A.Cu., w
						1,250	877.0	13.1	1.18	68	10.32	ssw.	13.9	1,225	810	
P. M.																
12:01	969.2	23.4	45	ssw.	7.6	1,238	878.6	13.1	1.18	68	10.25	ssw.	14.0	1,214	800	
						1,000	903.1	15.9	.....	63	11.38	ssw.	10.3	980	410	
12:13	969.1	23.9	44	ssw.	8.0	830	921.8	17.9	1.64	58	11.90	ssw.	7.6	814	100	
						750	930.2	19.2	.....	55	12.24	ssw.	7.4	735	0	
						500	957.5	23.2	.....	47	13.37	ssw.	6.4	490	0	
12:26	969.0	25.0	44	ssw.	6.3	396	969.0	25.0	.....	44	13.94	ssw.	6.3	388	0	Few A.Cu., w.

TABLE 7.—*Free-air data from kite flights at Drexel Aerological Station, September, 1916*—Continued.

September 19, 1916, series (No. 2).

Surface.						At different heights above sea.										
Time.	Pressure.	Temperature.	Relative humidity.	Wind.		Altitude.	Pressure.	Temperature.	Δt / 100 m.	Humidity.		Wind.		Potential.		Remarks.
				Dir.	Vel.					Rel.	Vap. pres.	Dir.	Vel.	Gravity.	Electric.	
A. M.	*mb.*	*° C.*	*%*		*m. p. s.*	*m.*	*mb.*	*° C.*		*%*	*mb.*		*m. p. s.*	*10^5 ergs.*	*volts.*	
1:07	968.5	25.4	43	sw.	6.3	396	968.5	25.4	.....	43	13.95	sw.	6.3	388	.....	
						500	956.5	23.5	.....	46	13.32	sw.	7.0	490	0	
1:19	968.3	25.6	41	sw.	8.0	728	932.0	19.4	1.81	51	11.49	ssw.	8.4	714	0	Cloudless.
						750	929.3	19.2	.....	52	11.57	ssw.	8.4	735	0	
						1,000	902.5	16.9	.....	57	10.97	ssw.	8.4	980	50	
2:00	967.6	26.2	40	ssw.	6.3	1,160	885.5	15.5	0.90	61	10.74	ssw.	8.4	1,137	290	
						1,250	876.0	15.1	.....	62	10.64	ssw.	9.2	1,225	430	
						1,500	850.1	14.0	.....	64	10.23	sw.	11.3	1,470	800	
2:15	967.4	26.2	40	ssw.	7.6	1,661	835.6	13.3	0.44	65	9.93	sw.	12.6	1,628	1,040	
						1,750	825.8	12.7	.....	64	9.40	sw.	12.6	1,715	1,230	
						2,000	801.3	10.9	.....	60	7.82	wsw.	12.8	1,960	1,770	
2:32	967.2	26.8	39	ssw.	6.3	2,077	794.0	10.3	0.72	60	7.53	wsw.	12.8	2,035	1,930	
						2,250	777.5	8.4	.....	63	6.94	wsw.	12.7	2,205	2,080	
						2,500	754.4	5.6	.....	67	6.10	w.	12.5	2,450	2,300	
2:56	966.9	27.5	40	ssw.	6.7	2,616	743.8	4.3	1.11	69	5.73	w.	12.5	2,563	2,400	
						2,750	731.5	3.4	.....	62	4.84	w.	12.4	2,694	2,670	
						3,000	709.3	1.7	.....	49	3.39	wnw.	12.2	2,939	3,170	
						3,250	687.5	0.0	.....	36	2.20	wnw.	12.1	3,184	.....	Cloudless.
3:18	966.8	27.7	39	ssw.	6.3	3,347	679.4	−1.3	0.73	31	1.70	wnw.	12.0	3,279	.....	
						3,250	687.5	−0.6	.....	33	1.92	wnw.	12.4	3,184	.....	
						3,000	709.3	+1.1	.....	40	2.65	wnw.	13.5	2,939	3,190	
						2,750	731.5	+2.8	.....	46	3.46	wnw.	14.5	2,694	2,730	
3:39	966.6	27.9	39	ssw.	6.3	2,683	737.8	3.3	1.02	48	3.72	wnw.	14.8	2,629	2,600	
						2,500	754.4	5.2	.....	50	4.42	wnw.	14.0	2,450	2,230	
						2,250	777.5	7.7	.....	53	5.57	wnw.	13.0	2,205	1,720	
						2,000	801.3	10.3	.....	56	7.02	w.	11.9	1,960	1,400	
						1,750	825.8	12.8	.....	59	8.72	w.	10.9	1,715	1,130	
3:58	966.5	27.8	38	ssw.	5.4	1,725	828.3	13.1	0.83	59	8.90	w.	10.8	1,691	1,100	Cloudless.
						1,500	850.1	15.0	.....	57	9.72	wsw.	11.1	1,470	850	
						1,250	875.0	17.1	.....	55	10.72	sw.	11.4	1,225	510	
4:27	966.4	26.9	40	ssw.	6.3	1,184	882.3	17.6	0.97	55	11.07	ssw.	11.5	1,161	380	
						1,000	900.8	19.4	.....	52	11.72	ssw.	11.2	980	30	
						750	927.5	21.8	.....	49	12.80	ssw.	9.3	735	0	
4:34	966.3	26.9	41	ssw.	6.7	697	933.6	22.3	1.50	48	12.93	ssw.	9.0	683	0	
						500	954.5	25.2	.....	43	13.19	ssw.	6.6	490	0	
4:40	966.3	26.8	40	ssw.	5.4	396	966.3	26.8	.....	40	14.10	ssw.	5.4	388	.....	Cloudless.

September 19, 1916, series (No. 3).

P. M.																
5:24	966.1	26.3	43	s.	4.0	396	966.1	26.3	.....	43	14.71	s.	4.0	388	.....	
						500	954.5	25.1	.....	44	14.02	s.	5.6	490	0	
						750	927.2	22.3	.....	47	12.66	s.	9.5	735	0	
5:32	966.0	25.8	46	s.	4.0	761	926.4	22.2	1.12	47	12.58	s.	9.7	746	0	
						1,000	901.0	19.6	.....	52	11.86	s.	9.3	980	0	
5:44	966.0	25.2	46	s.	4.0	1,098	891.1	18.5	1.10	54	11.50	s.	9.1	1,078	0	
						1,250	875.0	17.0	.....	57	11.05	ssw.	9.3	1,225	0	
5:59	965.9	24.5	50	s.	2.7	1,502	849.7	14.5	0.99	62	10.24	sw.	9.6	1,472	0	
						1,750	824.0	12.7	.....	55	8.08	sw.	9.5	1,715	520	
						2,000	800.0	10.9	.....	49	6.39	wsw.	9.3	1,960	1,040	
6:37	965.7	23.5	49	s.	3.6	2,255	776.3	9.0	0.73	42	4.82	w.	9.2	2,210	1,280	
						2,500	754.0	7.7	.....	29	3.05	w.	6.6	2,450	1,650	
						2,750	731.0	6.4	.....	16	1.54	w.	4.0	2,694	.....	Cloudless.
7:31	966.5	20.8	61	sse.	3.6	2,783	728.2	6.2	0.53	14	1.33	w.	3.7	2,727	.....	
						2,750	731.0	6.4	.....	14	1.35	w.	4.0	2,694	.....	
						2,500	754.0	7.7	.....	15	1.58	wsw.	5.9	2,450	1,280	
8:01	965.5	20.0	67	sse.	4.0	2,339	768.7	8.5	−1.20	15	1.66	sw.	7.2	2,292	1,060	
8:02	965.5	19.9	67	sse.	4.0	2,291	773.2	7.6	1.12	23	2.40	sw.	7.2	2,245	990	
						2,250	777.1	8.1	.....	28	3.02	sw.	7.5	2,205	940	
8:12	965.5	20.0	66	sse.	3.6	2,015	799.4	10.7	1.01	56	7.29	sw.	8.9	1,975	610	
						2,000	800.8	10.9	.....	56	7.30	sw.	9.0	1,960	590	
						1,750	825.0	13.4	.....	53	8.15	ssw.	10.0	1,715	220	
8:23	965.5	20.0	66	sse.	4.0	1,599	840.1	14.9	0.93	52	8.81	ssw.	10.5	1,567	0	
						1,500	849.8	15.8	.....	52	9.33	ssw.	10.6	1,470	0	
						1,250	875.0	18.1	.....	52	10.80	s.	10.7	1,225	0	
8:33	965.5	20.2	65	sse.	4.5	1,157	884.7	19.0	1.07	52	11.42	s.	10.8	1,134	0	
						1,000	901.0	20.7	.....	49	11.97	s.	11.1	980	0	
8:43	965.5	20.3	64	sse.	4.9	756	926.4	23.3	0.59	45	12.87	s.	11.5	741	0	
						750	927.2	23.3	.....	45	12.87	s.	11.5	735	0	
8:50	965.5	20.2	65	sse.	4.9	518	952.1	24.7	−3.69	43	13.38	sse.	13.1	508	0	
						500	954.5	24.0	.....	46	13.73	sse.	12.0	490	0	
8:54	965.5	20.2	65	sse.	5.4	396	965.5	20.2	.....	65	15.39	sse.	5.4	388	.....	Cloudless.

TABLE 7.—*Free-air data from kite flights at Drexel Aerological Station, September, 1916*—Continued.

September 19-20, 1916, series (No. 4).

Surface.						At different heights above sea.											
Time.	Pressure.	Temperature.	Relative humidity.	Wind.		Altitude.	Pressure.	Temperature.	$\frac{\Delta t}{100\ m.}$	Humidity.		Wind.		Potential.		Remarks.
				Dir.	Vel.					Rel.	Vap. pres.	Dir.	Vel.	Gravity.	Electric.	
P. M.	*mb.*	*° C.*	%		*m. p. s.*	*m.*	*mb.*	*° C.*		%	*mb.*		*m. p. s.*	*10^5 ergs.*	*volts.*	
9:31	965.3	19.6	66	sse.	4.9	396	965.3	19.6	.....	66	15.05	sse.	4.9	388	.....	Occasional flashes of distant lightning in w. after 9:20 p. m.
						500	954.0	21.6	.....	59	15.22	sse.	7.8	490	0	
9:34	965.3	19.6	66	s.	4.9	681	934.1	25.2	−1.96	47	15.07	s.	12.9	668	0	
						750	926.8	24.2	.....	46	13.89	s.	13.0	735	0	
9:40	965.3	19.6	66	sse.	4.5	787	922.9	23.5	1.60	46	13.32	s.	13.0	772	0	
						1,000	900.4	21.4	.....	49	12.49	ssw.	12.2	980	0	
9:47	965.3	19.8	66	s.	4.9	1,188	881.2	19.6	0.97	51	11.63	ssw.	11.5	1,165	0	
						1,250	874.9	19.4	.....	52	11.72	ssw.	11.5	1,225	40	
9:52	965.2	19.6	66	s.	5.4	1,283	871.6	19.3	0.22	53	11.87	ssw.	11.5	1,258	60	
						1,500	849.2	17.1	.....	51	9.94	sw.	9.1	1,470	210	
10:04	965.2	19.4	67	s.	4.9	1,569	842.9	16.5	0.98	50	9.38	sw.	8.4	1,538	260	
						1,750	824.1	14.9	.....	48	7.91	sw.	8.4	1,715	450	
						2,000	800.2	12.8	.....	45	6.65	wsw.	8.3	1,960	720	
						2,250	776.8	10.9	.....	43	5.61	wsw.	8.2	2,205	1,210	
10:44	964.9	18.8	70	s.	5.4	2,297	772.8	10.2	0.87	42	5.23	wsw.	8.2	2,251	1,450	
						2,250	776.8	9.0	.....	50	5.74	wsw.	8.5	2,205	1,210	
10:49	964.9	18.8	70	s.	4.9	2,229	778.9	8.5	.....	53	5.88	wsw.	8.7	2,184	1,100	
						2,250	776.8	8.5	.....	52	5.77	wsw.	8.7	2,205	1,210	
						2,500	753.7	8.3	.....	39	4.27	wsw.	8.6	2,450	1,670	
						2,750	731.2	8.2	.....	26	2.83	wsw.	8.5	2,694	1,940	
11:04	964.8	18.7	71	s.	4.9	2,756	730.6	8.2	0.05	26	2.83	wsw.	8.5	2,700	1,950	Cloudless.
						3,000	709.0	5.8	.....	23	2.12	wsw.	7.8	2,939	.....	
						3,250	687.8	3.3	.....	21	1.63	wsw.	7.0	3,184	.....	
11:15	964.7	18.5	71	ssw.	4.5	3,420	673.7	1.6	0.95	19	1.30	wsw.	6.5	3,350	.....	
						3,250	687.8	3.1	.....	18	1.37	wsw.	7.0	3,184	.....	
						3,000	709.0	4.4	.....	16	1.34	wsw.	7.8	2,939	.....	
						2,750	731.2	7.7	.....	14	1.47	wsw.	8.6	2,694	1,600	
11:40	964.6	18.1	74	s.	3.6	2,724	733.5	7.9	0.49	14	1.49	wsw.	8.7	2,669	1,600	
						2,500	753.7	9.0	.....	14	1.61	wsw.	8.8	2,450	1,470	
11:47	964.6	17.9	75	s.	3.6	2,257	775.8	10.2	.....	13	1.62	sw.	9.0	2,212	1,170	
11:49	964.6	17.8	76	s.	3.6	2,237	775.8	10.2	0.94	19	2.37	sw.	13.0	2,212	1,170	
						2,250	776.8	10.3	.....	19	2.38	sw.	13.0	2,205	1,160	
						2,000	800.2	12.6	.....	25	3.65	sw.	11.6	1,960	880	
						1,750	824.1	15.0	.....	31	5.29	ssw.	10.3	1,715	590	
A. M.																
12:03	964.5	17.8	75	s.	3.6	1,608	838.2	16.3	0.77	34	6.30	ssw.	9.5	1,576	425	
						1,500	848.8	17.1	.....	36	7.02	ssw.	10.0	1,470	380	
						1,250	874.0	19.1	.....	48	10.61	ssw.	11.2	1,225	280	
12:12	964.4	17.6	77	ssw.	3.6	1,195	879.6	19.5	0.76	50	11.34	ssw.	11.5	1,171	260	
						1,000	899.7	21.0	.....	51	12.68	ssw.	9.9	980	140	
						750	926.0	22.9	.....	53	14.80	ssw.	7.9	735	0	
12:27	964.2	17.5	78	ssw.	4.0	552	947.0	24.4	−4.36	54	16.51	ssw.	6.3	541	0	Few A.St. in w.
						500	952.7	22.1	.....	62	16.49	ssw.	5.5	490	0	
12:29	964.2	17.6	78	ssw.	4.0	396	964.2	17.6	.....	78	15.70	ssw.	4.0	388	.....	

September 20, 1916, series (No. 5).

A. M.																
12:59	963.8	17.4	78	ssw.	4.5	396	963.8	17.4	.....	78	15.50	ssw.	4.5	388	.....	Few A.St. w.; lightning in nnw.
						500	952.4	19.9	.....	68	15.80	ssw.	8.4	490	0	
1:01	963.8	17.2	79	ssw.	4.5	691	931.4	24.6	−2.44	51	15.78	ssw.	15.5	678	0	
						750	925.3	24.1	.....	51	15.31	ssw.	15.0	735	0	
						1,000	899.0	21.4	.....	51	13.00	ssw.	12.1	980	0	
1:15	963.7	17.3	79	ssw.	3.6	1,200	878.5	20.3	0.84	51	12.15	ssw.	11.6	1,176	0	
						1,250	873.0	19.9	.....	50	11.62	ssw.	11.9	1,225	70	
						1,500	847.8	17.7	.....	43	9.68	sw.	13.2	1,470	440	
1:31	963.6	17.1	80	ssw.	3.6	1,661	832.3	16.3	0.87	38	7.04	sw.	14.1	1,628	680	
						1,750	822.5	15.6	.....	36	6.38	sw.	13.6	1,715	750	
						2,000	799.0	13.5	.....	31	4.80	wsw.	12.1	1,960	960	1/10 St.Cu., w.
1:49	963.6	16.7	82	ssw.	3.6	2,165	783.9	12.2	0.81	28	3.98	wsw.	11.2	2,122	1,105	
						2,250	775.8	11.5	.....	26	3.53	wsw.	10.9	2,205	1,460	
						2,500	752.8	9.3	.....	21	2.46	w.	10.2	2,450	1,735	
						2,750	730.5	7.2	.....	16	1.63	w.	9.3	2,694	.....	
2:13	963.2	16.6	82	ssw.	4.0	2,793	726.5	6.8	0.86	15	1.48	w.	9.2	2,737	.....	
						3,000	708.3	4.8	.....	20	0.71	w.	9.3	2,939	.....	
						3,250	686.9	2.2	.....	26	1.86	w.	9.4	3,184	.....	
2:55	962.2	16.6	84	s.	2.2	3,472	668.1	0.0	1.00	31	1.89	w.	9.5	3,401	.....	5/10 St.Cu., w.
						3,250	686.9	2.2	.....	31	2.22	w.	9.0	3,184	.....	
						3,000	708.3	4.7	.....	30	2.56	w.	8.4	2,939	.....	
						2,750	730.5	7.1	.....	30	3.03	w.	7.9	2,694	.....	
3:03	962.1	16.4	84	ssw.	3.1	2,697	735.3	7.7	1.11	30	3.15	w.	7.8	2,643	1,280	
						2,500	752.8	9.9	.....	31	3.78	w.	9.0	2,450	1,360	
3:16	961.9	16.3	82	s.	3.1	2,256	774.7	12.6	0.98	32	4.67	wsw.	10.5	2,211	1,470	Lightning to w., nw., and n.
						2,250	775.8	12.7	.....	32	4.70	wsw.	10.5	2,205	1,470	
						2,000	799.0	15.1	.....	30	5.15	wsw.	10.2	1,960	1,600	
						1,750	822.5	17.6	.....	28	5.64	sw.	9.9	1,715	1,730	
3:28	961.8	16.8	79	ssw.	6.7	1,664	830.8	18.4	0.60	27	5.71	sw.	9.8	1,631	1,780	
						1,500	846.7	19.3	.....	31	6.94	sw.	10.6	1,470	.....	
3:39	961.7	17.4	76	ssw.	5.8	1,261	870.5	20.8	0.86	36	8.85	sw.	11.7	1,236	6,000	6/10 St.Cu., w.
						1,250	871.0	21.7	.....	38	9.86	sw.	11.8	1,225	.....	
						1,000	896.9	23.0	.....	39	10.96	sw.	12.4	980	.....	
3:47	961.6	17.5	77	sw.	6.3	806	917.0	24.7	−1.63	42	13.07	sw.	13.0	790	1,400	
						750	922.8	23.8	.....	46	13.64	sw.	12.4	735	.....	
						500	949.8	19.7	.....	65	14.92	s.	9.9	490	.....	Sprinkling at 3:57 a. m.
3:58	961.5	18.0	73	s.	8.9	398	961.5	18.0	.....	73	15.07	s.	8.9	388	.....	8/10 St.Cu., w.

TABLE 7.—*Free-air data from kite flights at Drexel Aerological Station, September, 1916*—Continued.

September 20, 1916, series (No. 6).

Surface.						At different heights above sea.										Remarks.
Time.	Pressure.	Temperature.	Relative humidity.	Wind.		Altitude.	Pressure.	Temperature.	$\frac{\Delta t}{100\ m.}$	Humidity.		Wind.		Potential.		
				Dir.	Vel.					Rel.	Vap. pres.	Dir.	Vel.	Gravity.	Electric.	
A. M.	*mb.*	°*C.*	%		*m. p. s.*	*m.*	*mb.*	°*C.*		%	*mb.*		*m. p. s.*	10^5 *ergs.*	*volts.*	
4:36	962.3	17.2	78	ssw.	5.4	396	962.3	17.2	.....	78	15.30	ssw.	5.4	388	.....	Thunder from n.
						500	950.8	19.3	.....	69	15.45	sw.	11.0	490	0	
4:39	962.3	17.3	77	sw.	5.4	694	929.6	23.2	−2.01	51	14.50	wsw.	21.4	681	0	
						750	923.6	23.8	.....	45	13.32	wsw.	18.7	735	0	
4:49	962.6	16.8	80	n.	1.8	864	912.0	25.1	−1.02	33	10.52	wsw.	13.2	847	0	5/10 St.Cu., w.
						1,000	897.9	23.7	.....	33	9.67	wsw.	13.0	980	0	
4:58	962.8	16.2	82	n.	2.2	1,225	875.1	21.4	1.02	33	8.41	wsw.	12.8	1,201	0	
						1,250	872.8	21.1	.....	33	8.26	wsw.	12.8	1,225	30	
						1,500	847.4	18.5	.....	36	7.67	wsw.	12.7	1,470	340	
						1,750	822.8	15.9	.....	38	6.90	wsw.	12.6	1,715	640	
5:17	962.4	16.0	84	ene.	2.7	1,800	818.0	15.4	1.04	39	6.82	wsw.	12.6	1,764	705	Lightning last seen about 5:40.
						2,000	798.5	13.6	.....	37	5.76	wsw.	11.1	1,960	.....	
5:30	962.2	15.9	84	ese.	2.7	2,108	788.4	12.6	0.91	36	5.25	wsw.	10.3	2,066	.....	6/10 St.Cu., w.
						2,250	774.6	11.4	.....	36	4.85	wsw.	11.7	2,205	.....	Rain, 5:52—5:53 a. m.
						2,500	751.7	9.2	.....	36	4.19	w.	14.0	2,450	.....	
6:00	961.5	16.0	81	ese.	4.5	2,518	750.2	9.0	0.88	36	4.13	w.	14.2	2,467	.....	At 5:54 a. m., electric potential very high; length of spark 90 mm.
						2,750	729.3	6.6	.....	39	3.80	w.	15.7	2,694	.....	
						3,000	707.0	4.1	.....	43	3.52	w.	18.9	2,939	.....	
						3,250	685.6	1.5	.....	46	3.13	w.	19.1	3,184	.....	
6:18	961.6	15.9	82	e.	1.8	3,362	676.6	0.4	1.04	48	3.02	w.	19.8	3,294	.....	6/10 St.Cu., w.
						3,250	685.7	1.6	.....	47	3.22	w.	19.7	3,184	4,680	
						3,000	707.5	4.2	.....	45	3.71	w.	19.4	2,939	3,380	
6:35	961.7	15.9	83	ese.	2.2	2,908	715.8	5.2	1.21	44	3.89	w.	19.3	2,849	3,210	
						2,750	729.1	6.8	.....	42	4.15	w.	17.3	2,694	2,910	
						2,500	751.7	9.4	.....	38	4.48	w.	14.2	2,450	2,440	4/10 St.Cu., w.
6:50	961.7	15.1	86	s.	1.3	2,370	763.8	10.8	1.01	36	4.66	w.	12.6	2,322	2,200	Portion of primary rainbow visible from 6:56 to 7:03 a. m.
						2,250	774.6	12.0	.....	35	4.91	w.	13.1	2,205	2,580	
						2,000	798.2	14.5	.....	32	5.28	wsw.	14.1	1,960	3,380	
7:03	961.8	15.8	86	s.	1.8	1,793	818.0	16.6	0.80	30	5.67	wsw.	15.0	1,757	4,050	
						1,750	822.3	16.9	.....	30	5.78	wsw.	15.0	1,715	4,180	
						1,500	846.7	19.0	.....	29	6.37	wsw.	14.9	1,470	3,040	3/10 St. Cu., w.
						1,250	871.8	21.0	.....	28	6.96	sw.	14.9	1,225	1,860	
						1,000	897.0	23.0	.....	27	7.59	sw.	14.8	980	700	
7:22	961.7	15.8	86	se.	1.8	822	915.2	24.4	−1.95	26	7.95	sw.	14.8	806	0	
						750	923.0	23.0	.....	36	10.12	sw.	12.6	735	0	
						500	950.0	18.1	.....	71	14.75	sse.	5.0	490	0	
7:27	961.7	16.1	85	sse.	1.8	396	961.7	16.1	.....	85	15.56	sse.	1.8	388	.....	

September 20, 1916, series (No. 7).

A. M.																
9:06	961.8	21.7	59	s.	4.0	396	961.8	21.7	.....	59	15.32	s.	4.0	388	.....	2/10 A.Cu., w.
						500	950.0	22.4	.....	53	14.36	s.	5.6	490	0	
						750	923.3	24.5	.....	36	11.07	sw.	10.2	735	0	
9:09	961.8	21.6	60	s.	4.5	800	918.1	24.6	−0.95	35	10.83	sw.	10.3	784	0	
						1,000	897.0	21.1	.....	32	8.01	w.	9.3	980	0	
9:19	961.7	21.4	60	w.	3.1	1,093	887.6	19.4	1.77	30	6.76	w.	8.9	1,072	0	
						1,250	871.0	18.7	.....	29	6.26	wnw.	8.9	1,225	0	
						1,500	846.0	17.7	.....	27	5.47	nnw.	9.0	1,470	0	
10:09	961.5	24.8	48	w.	4.5	1,680	828.7	16.9	0.43	26	5.00	n.	9.0	1,647	680	
						1,750	822.2	16.4	.....	26	4.85	n.	8.8	1,715	750	
						2,000	798.0	14.4	.....	27	4.43	nw.	8.2	1,960	1,010	
						2,250	774.6	12.4	.....	28	4.03	w.	7.6	2,205	1,270	
10:57	961.5	26.0	45	wnw.	3.1	2,305	769.6	12.0	0.78	28	3.93	w.	7.5	2,259	1,320	
						2,500	751.5	10.1	.....	29	3.58	w.	8.6	2,450	1,500	
						2,750	729.3	7.6	.....	30	3.13	w.	10.0	2,694	1,740	
						3,000	707.5	5.2	.....	32	2.83	w.	11.4	2,939	1,970	
11:16	961.6	25.8	46	wnw.	4.0	3,255	685.3	2.6	0.99	33	2.43	w.	12.8	3,189	2,210	1/10 A.Cu., n.
						3,500	665.1	0.2	.....	36	2.23	w.	13.5	3,429	2,600	
						3,750	645.0	−2.3	.....	39	1.97	w.	14.2	3,694	2,990	
11:45	961.7	27.9	34	nw.	4.5	3,872	635.2	−3.5	0.99	41	1.87	w.	14.6	3,793	3,180	
						4,000	625.0	−4.9	.....	43	1.74	w.	14.5	3,918	3,390	
						4,250	605.3	−7.5	.....	48	1.55	w.	14.4	4,162	3,780	
						4,500	586.1	−10.1	.....	52	1.34	w.	14.2	4,407	4,180	
P. M.																
12:06	961.8	28.0	33	nw.	4.9	4,638	576.2	−11.6	0.95	55	1.24	w.	14.1	4,542	4,400	
						4,750	567.7	−11.9	.....	52	1.14	w.	15.0	4,651	4,700	
12:31	961.8	28.4	33	nw.	4.0	4,971	551.1	−12.6	0.46	46	0.94	w.	16.8	4,867	.....	Cloudless.
12:44	961.8	28.8	30	nw.	4.0	4,781	564.3	−11.4	−1.25	41	0.94	w.	17.9	4,682	4,800	
						4,750	566.6	−11.8	.....	44	0.97	w.	17.7	4,651	4,760.	
12:50	961.8	29.0	29	nnw.	5.4	4,709	569.6	−12.3	1.00	48	1.01	w.	17.4	4,611	4,710	
						4,500	584.9	−10.2	.....	50	1.28	w.	17.0	4,407	4,440	
						4,250	604.0	−8.7	.....	51	1.48	w.	16.7	4,162	4,120	
						4,000	623.6	−5.2	.....	54	2.13	w.	16.0	3,918	3,800	
1:38	962.0	29.3	25	nw.	5.8	3,855	635.2	−3.8	0.28	55	2.44	w.	15.7	3,776	3,610	
						3,750	643.7	−3.0	.....	55	2.61	w.	15.7	3,673	3,470	
						3,500	664.1	−1.1	.....	54	3.01	w.	15.9	3,429	3,150	
						3,250	685.5	0.8	.....	53	3.43	w.	16.0	3,184	2,830	
						3,000	706.9	2.7	.....	52	3.85	nw.	16.1	2,939	2,510	
						2,750	729.0	4.6	.....	52	4.41	nw.	16.2	2,694	2,110	
						2,500	751.5	6.5	.....	51	4.94	nw.	16.3	2,450	1,720	
2:17	962.2	30.0	21	nw.	8.0	2,488	752.9	6.6	1.01	51	4.97	nw.	16.3	2,438	1,700	
						2,250	774.6	9.0	.....	49	5.63	nw.	14.6	2,205	1,3'0	
						2,000	798.0	10.9	.....	48	6.26	nw.	13.3	1,960	990	
2:28	962.3	29.8	23	nw.	8.5	1,818	816.1	13.4	0.99	46	7.07	nw.	11.5	1,880	730	
						1,750	822.4	14.1	.....	45	7.24	nw.	12.1	1,715	640	
						1,500	847.0	16.5	.....	40	7.51	nw.	14.4	1,470	290	
2:38	962.4	29.3	25	nnw.	10.7	1,291	868.4	18.6	0.83	36	7.71	nw.	16.3	1,266	0	
						1,250	872.3	18.9	.....	36	7.86	nw.	16.3	1,225	0	
						1,000	898.2	21.0	.....	33	8.21	nw.	16.2	980	0	
2:50	962.4	28.6	25	nw.	9.8	855	913.3	22.2	1.22	32	8.57	nw.	16.2	838	0	
						750	924.3	23.5	.....	31	8.98	nw.	14.5	735	0	
						500	951.2	26.5	.....	28	9.70	nnw.	10.6	490	0	
2:57	962.5	27.8	27	nnw.	8.9	396	962.5	27.8	.....	27	10.09	nnw.	8.9	388	.....	Cloudless.

TABLE 7.—*Free-air data from kite flights at Drexel Aerological Station, September, 1916*—Continued.

September 20, 1916, series (No. 8).

Surface.						At different heights above sea.											
Time.	Pressure.	Temperature.	Relative humidity.	Wind.		Altitude.	Pressure.	Temperature.	Δt / 100 m.	Humidity.		Wind.		Potential.		Remarks.
				Dir.	Vel.					Rel.	Vap. pres.	Dir.	Vel.	Gravity.	Electric.	
P. M.	*mb.*	°*C.*	%		*m. p. s.*	*m.*	*mb.*	°*C.*		%	*mb.*		*m. p. s.*	10^5 *ergs.*	*volts.*	
3:28	963.0	26.7	29	nnw.	7.2	396	963.0	26.7	.....	29	10.16	nnw.	7.2	388	.....	Cloudless.
						500	951.5	25.1	.....	30	9.56	nnw.	9.5	490	0	
3:35	963.1	26.4	30	nnw.	8.9	729	927.0	21.6	1.53	33	8.51	nnw.	14.5	715	0	Few Cl.St., w.
						750	924.5	21.4	.....	33	8.41	nnw.	14.5	735	0	
3:46	963.3	26.0	30	nnw.	8.5	1,000	898.0	18.5	.....	38	8.09	nnw.	14.2	980	0	
						1,155	882.1	16.7	1.15	41	7.79	nnw.	14.0	1,132	0	
						1,250	872.3	15.7	.....	43	7.67	nnw.	14.5	1,225	140	
						1,500	847.0	13.0	.....	46	6.89	nnw.	15.7	1,470	520	
3:53	963.4	26.2	30	nnw.	8.0	1,563	840.7	12.3	1.08	47	6.73	nnw.	16.0	1,532	620	
3:54	963.4	26.2	30	nnw.	8.5	1,595	837.6	13.4	−3.44	41	6.30	nnw.	15.0	1,563	660	
						1,750	822.4	12.2	.....	41	5.83	nnw.	15.2	1,715	880	
						2,000	797.9	10.2	.....	40	4.98	nw.	15.4	1,960	1,130	
						2,250	774.0	8.3	.....	39	4.27	nw.	15.7	2,205	1,390	
4:11	963.7	25.8	30	nnw.	7.2	2,353	764.9	7.5	0.78	39	4.04	nw.	15.8	2,306	1,500	Few Cl.St., w.
						2,500	751.0	6.0	.....	41	3.83	nw.	16.0	2,450	1,640	
						2,750	728.3	3.5	.....	45	3.53	nw.	16.4	2,694	1,870	
4:25	963.9	25.3	28	nnw.	7.2	2,781	725.9	3.2	1.00	45	3.46	nw.	16.5	2,725	1,900	4/10 Cl.St., w.
						3,000	706.3	1.4	.....	47	3.18	nw.	17.8	2,939	2,250	
						3,250	685.3	−0.3	.....	50	2.88	wnw.	19.3	3,184	2,660	
						3,500	664.3	−2.0	.....	51	2.64	wnw.	20.3	3,429	3,060	
5:00	964.5	24.0	28	nnw.	6.7	3,690	648.3	−4.3	0.75	54	2.30	wnw.	22.0	3,614	3,600	
						3,500	664.3	−2.8	.....	55	2.66	wnw.	19.9	3,429	3,400	2/10 Cl., w.
						3,250	685.3	−1.7	.....	56	2.97	nw.	18.3	3,184	3,130	
5:35	965.1	22.4	32	nnw.	4.5	3,055	702.4	0.6	1.03	57	3.64	nw.	15.1	2,993	2,920	
						3,000	706.7	1.2	0.00	56	3.73	nw.	15.3	2,939	2,860	1/10 Cl., w.
						2,750	729.4	3.7	.....	51	4.06	nw.	15.7	2,694	2,600	
						2,500	752.0	6.4	.....	46	4.42	nw.	16.3	2,450	2,140	Few Cl., w.
5:57	965.5	21.6	34	nnw.	5.4	2,394	761.8	7.4	0.69	44	4.53	nw.	16.5	2,346	1,890	
						2,250	775.1	8.0	.....	41	4.40	nw.	18.3	2,205	1,670	
						2,000	798.8	10.1	.....	31	3.83	nnw.	24.7	1,960	1,290	
6:05	965.6	21.4	32	nnw.	5.8	1,829	815.6	11.3	−1.12	26	3.48	nnw.	28.3	1,793	1,040	
						1,750	823.3	10.4	.....	29	3.66	nnw.	21.7	1,715	920	
6:15	965.9	20.8	33	nnw.	4.0	1,686	829.7	9.7	0.76	31	3.73	nnw.	16.3	1,662	800	
						1,500	848.6	11.1	.....	35	4.62	nnw.	15.3	1,470	460	
6:25	966.1	20.6	32	nnw.	4.0	1,251	874.2	13.0	1.00	41	6.14	nnw.	14.0	1,226	0	
						1,000	900.3	15.9	.....	39	7.05	nnw.	15.4	980	0	
6:36	966.3	20.0	33	nnw.	3.3	857	915.8	17.6	0.92	38	7.65	nnw.	16.2	840	0	
						750	927.3	18.7	.....	38	8.20	nnw.	13.8	735	0	
6:39	966.4	19.8	34	nnw.	5.8	606	943.1	20.1	−0.79	37	8.71	nnw.	10.5	594	0	Few Cl., w.
						500	954.5	19.9	.....	36	8.37	nnw.	8.1	490	0	
6:41	966.5	19.7	35	nnw.	5.8	396	966.5	19.7	.....	35	8.03	nnw.	5.8	388	.....	

September 21, 1916 (No. 1).

A. M.																
7:18	969.7	9.0	63	wnw.	3.6	396	969.7	9.0	.....	63	7.23	wnw.	3.6	388	.....	Cloudless.
						500	957.3	11.1	.....	58	7.66	wnw.	6.5	490	.....	
						750	929.5	16.2	.....	44	8.10	nw.	13.8	735	.....	
7:19	969.7	9.0	63	wnw.	3.6	759	928.7	16.4	−2.04	44	8.21	nw.	14.1	744	.....	
						1,000	902.1	13.9	.....	39	6.19	nw.	14.0	980	1,780	
7:33	969.8	9.4	63	wnw.	3.6	1,222	879.0	11.6	1.04	34	4.64	nw.	14.0	1,198	2,530	
						1,250	875.9	11.3	.....	34	4.55	nw.	14.3	1,225	2,630	
						1,500	850.0	8.8	.....	37	4.19	nw.	16.5	1,470	3,780	
7:48	969.8	9.7	60	wnw.	4.0	1,606	839.2	7.7	1.02	38	3.99	nw.	17.5	1,574	4,950	
						1,750	824.7	6.4	.....	40	3.84	nw.	17.4	1,715	5,250	
						2,000	799.9	4.0	.....	43	3.50	nw.	17.1	1,960	5,770	
8:06	969.9	10.7	59	wnw.	4.9	2,108	789.2	3.0	0.92	45	3.41	nw.	17.0	2,066	6,000	
						2,000	799.9	4.0	.....	45	3.66	nw.	16.7	1,960	5,530	
						1,750	824.7	6.3	.....	44	4.20	nw.	16.0	1,715	4,430	
8:32	969.9	12.4	55	wnw.	2.7	1,560	843.9	8.0	0.89	44	4.72	nw.	15.5	1,529	3,600	
						1,500	850.0	8.5	.....	43	4.77	nw.	15.5	1,470	3,380	
						1,250	875.9	10.8	.....	40	5.18	nw.	15.4	1,225	2,480	
8:43	969.9	14.0	46	wnw.	4.5	1,132	888.6	11.8	0.78	39	5.40	nw.	15.3	1,110	2,050	
						1,000	902.1	12.8	.....	38	5.62	nw.	13.8	980	1,350	
8:58	969.9	14.8	43	wnw.	5.4	747	930.3	14.8	−0.83	36	6.06	nw.	11.0	732	0	
9:00	969.9	14.9	42	wnw.	5.4	517	956.0	12.9	1.74	38	5.65	wnw.	8.9	507	0	
						500	957.5	13.2	.....	38	5.76	wnw.	8.3	490	0	
9:02	969.9	15.0	41	wnw.	4.9	396	969.9	15.0	.....	41	6.99	wnw.	4.9	388	.....	Cloudless.

September 21, 1916 (No. 2).

A. M.																
9:40	969.7	17.0	40	wnw.	5.4	396	969.7	17.0	.....	40	7.75	wnw.	5.4	388	.....	Cloudless.
						500	957.6	15.7	.....	39	6.96	wnw.	6.8	490	0	
						750	929.5	12.5	.....	38	5.51	nw.	10.2	735	0	
9:53	969.6	17.1	37	wnw.	5.8	772	927.4	12.2	1.28	38	5.40	nw.	10.5	757	0	
						1,000	902.0	10.5	.....	39	4.95	nw.	12.4	980	570	
10:08	969.5	18.4	35	wnw.	5.8	1,202	880.9	8.9	0.77	40	4.56	nw.	14.0	1,178	1,075	
						1,250	875.0	8.5	.....	40	4.44	nw.	14.5	1,225	1,200	
						1,500	849.0	6.4	.....	42	4.04	nw.	17.2	1,470	1,880	
						1,750	823.5	4.3	.....	43	3.57	nw.	19.9	1,715	2,050	
10:37	969.2	19.2	30	nw.	9.4	1,922	806.6	2.9	0.84	44	3.31	nw.	21.8	1,884	1,850	
						1,750	823.5	4.3	.....	45	3.74	wnw.	17.6	1,715	1,400	
NOON	968.2	20.4	27	nw.	8.9	1,683	830.1	4.9	.....	45	3.90	wnw.	16.0	1,650	1,220	

TABLE 7.—*Free-air data from kite flights at Drexel Aerological Station, September, 1916*—Continued.

September 21, 1916 (No. 2)—Continued.

Surface.						At different heights above sea.											
Time.	Pressure.	Temperature.	Relative humidity.	Wind.		Altitude.	Pressure.	Temperature.	$\frac{\Delta t}{100\ m.}$	Humidity.		Wind.		Potential.		Remarks.
				Dir.	Vel.					Rel.	Vap. pres.	Dir.	Vel.	Gravity.	Electric.	
P. M.	*mb.*	°*C.*	%		*m. p. s.*	*m.*	*mb.*	°*C.*		%	*mb.*		*m. p. s.*	10^5 *ergs.*	*volts.*	
						1,750	823.5	4.4		45	3.77	wnw.	16.2	1,715		
						2,000	798.0	2.4		44	3.19	wnw.	17.1	1,960		
1:01	967.2	21.4	23	nw.	10.7	2,114	786.5	1.5	0.79	44	3.00	wnw.	17.5	2,072	835	
						2,250	773.3	0.2		41	2.54	wnw.	17.9	2,205	1,450	
						2,500	749.3	−2.2		34	1.73	wnw.	18.5	2,450	2,570	
1:24	966.9	22.2	24	nw.	8.5	2,639	736.5	−3.5	0.95	31	1.41	wnw.	18.9	2,586	3,200	Few Ci. St., wnw.
						2,750	726.1	−4.0		30	1.31	wnw.	19.4	2,694	3,530	
						3,000	703.4	−5.0		28	1.12	wnw.	20.4	2,939	4,270	
						3,250	681.5	−6.1		27	0.99	wnw.	21.5	3,184		
1:42	966.7	21.8	24	nw.	9.4	3,373	671.2	−6.6	0.46	26	0.91	wnw.	22.0	3,304		
						3,250	681.5	−6.0		26	0.96	wnw.	21.3	3,184		
						3,000	703.4	−4.7		25	1.03	wnw.	19.8	2,939	4,360	
2:14	966.4	21.8	22	nw.	9.8	2,839	718.8	−3.9	0.96	24	1.06	wnw.	18.8	2,782	3,940	
						2,750	726.1	−3.0		25	1.19	wnw.	18.3	2,694	3,700	
						2,500	749.3	−0.6		28	1.63	wnw.	17.0	2,450	3,040	
						2,250	773.3	1.8		32	2.23	wnw.	15.6	2,205	2,390	
						2,000	798.0	4.2		36	2.97	wnw.	14.2	1,960	1,700	
						1,750	822.9	6.6		39	3.80	wnw.	12.9	1,715	970	
2:44	966.1	22.2	20	nw.	9.8	1,724	825.4	6.8	1.12	39	3.85	wnw.	12.8	1,690	890	
						1,500	847.5	9.3		36	4.22	wnw.	12.8	1,470	630	
						1,250	873.0	12.1		33	4.66	wnw.	12.9	1,225	340	
						1,000	899.5	14.9		30	5.08	wnw.	13.0	980	50	
3:02	965.9	22.0	23	wnw.	7.6	804	921.0	17.1	1.40	27	5.26	wnw.	13.0	788	0	
						750	926.8	17.9		26	5.23	wnw.	12.4	735	0	
						500	954.0	21.3		20	5.07	wnw.	9.6	490	0	
3:06	965.8	22.8	17	wnw.	8.5	396	965.8	22.8		17	4.72	wnw.	8.5	388		Few Ci., wnw.

September 22, 1916.

A. M.																
7:29	966.7	8.8	67	wnw.	4.0	396	966.7	8.8		67	7.59	wnw.	4.0	388		Cloudless.
						500	954.3	8.2		71	7.72	nw.	5.6	490		
						750	925.5	6.8		82	8.10	nnw.	9.5	735		
						1,000	897.8	5.5		92	8.31	n.	13.4	980	750	
7:46	966.8	9.5	66	nw.	3.6	1,061	891.7	5.2	0.54	94	8.32	n.	14.4	1,040	1,010	
7:47	966.8	9.5	66	nw.	3.6	1,091	888.5	6.7	−5.00	94	9.22	n.	16.4	1,070	1,140	
						1,250	870.9	6.3		89	8.50	n.	16.0	1,225	1,600	
						1,500	845.0	5.6		82	7.46	n.	15.4	1,470	2,060	
8:04	966.9	10.2	65	nw.	4.5	1,576	837.6	5.4	0.27	80	7.18	n.	15.2	1,545	2,200	
8:08	966.9	10.4	65	nw.	4.9	1,670	828.1	6.8	−1.49	65	6.42	n.	15.4	1,637	2,420	
						1,750	820.0	6.3		65	6.21	n.	15.4	1,715	2,610	
						2,000	795.8	4.8		64	5.50	n.	15.3	1,960	3,220	
						2,250	772.0	3.4		64	4.99	nnw.	15.2	2,205	3,840	
						2,500	748.7	2.0		63	4.45	nnw.	15.2	2,450	4,280	
						2,750	725.5	0.6		62	3.96	nnw.	15.1	2,694	5,180	
8:57	967.2	11.5	62	nnw.	5.4	2,828	718.5	0.2	0.57	62	3.84	nnw.	15.1	2,771	5,700	Cloudless.
						3,000	703.0	−0.7		62	3.57	nnw.	15.4	2,939	5,930	
						3,250	681.0	−2.2		62	3.16	nnw.	15.8	3,184	6,270	1/10 St. Cu., nnw.
						3,500	660.0	−3.6		63	2.85	nw.	16.3	3,429	6,640	
						3,750	639.7	−5.1		63	2.51	nw.	16.7	3,673	7,020	
10:13	967.6	14.2	57	nnw.	4.9	3,896	635.7	−5.4	0.54	63	2.44	nw.	16.8	3,728	7,100	5/10 St. Cu., nnw.
						3,750	639.7	−5.1		63	2.51	nw.	16.8	3,673	6,840	
						3,500	660.0	−3.9		64	2.82	nw.	17.0	3,429	5,680	
						3,250	681.0	−2.6		64	3.15	nnw.	17.2	3,184	5,750	
						3,000	703.0	−1.4		65	3.54	nnw.	17.4	2,939	5,320	
11:03	967.6	14.8	57	nnw.	4.9	2,850	717.0	−0.6	0.57	65	3.78	nnw.	17.5	2,792	4,900	8/10 St. Cu., nnw.
						2,750	726.2	0.0		67	4.09	nnw.	17.3	2,694	4,580	St. Cu., base about 2,500 m.
						2,500	750.0	1.4		72	4.87	nnw.	16.8	2,450	3,790	
						2,250	774.1	2.8		78	5.83	nnw.	16.2	2,205	3,170	
						2,000	798.0	4.2		83	6.85	nnw.	15.6	1,960	2,560	
						1,750	822.1	5.7		88	8.06	nnw.	15.0	1,715	1,950	
11:33	967.8	15.3	58	nnw.	4.5	1,693	828.1	6.0	−1.02	89	8.32	nnw.	14.9	1,659	1,810	
						1,500	847.0	4.0		84	6.83	nnw.	10.8	1,470	1,350	
11:35	967.8	15.2	58	nnw.	4.5	1,437	853.5	3.4	0.87	82	6.40	nnw.	9.4	1,409	1,200	St. Cu., base about 1,400 m.
						1,250	872.7	5.0		78	6.80	nnw.	9.0	1,225	750	
						1,000	899.5	7.2		72	7.32	nnw.	8.4	980	160	
11:51	967.9	14.7	58	nnw.	4.9	816	920.6	8.8	1.43	68	7.70	nnw.	8.0	800	0	
						750	926.8	9.7		66	7.94	nnw.	7.5	735	0	
						500	955.7	13.3		60	9.16	n.	5.7	490	0	
Moon	967.9	14.8	57	n.	4.9	396	967.9	14.8		57	9.59	n.	4.9	388		9/10 St. Cu., nnw.

September 23, 1916 (No. 1).

A. M.																
7:25	971.6	7.4	90	se.	2.7	396	971.6	7.4		90	9.27	se.	2.7	388		Cloudless.
						500	959.7	8.8		79	8.95	sse.	4.4	490	0	
7:34	971.7	8.1	86	se.	2.7	511	958.3	9.0	−1.39	78	8.95	s.	4.6	501	0	
						750	930.7	8.8		76	8.61	s.	4.9	735	0	
7:46	971.8	8.8	83	sse.	2.7	823	923.0	8.7	0.10	75	8.44	s.	5.0	807	0	
						1,000	903.6	9.3		74	8.67	s.	4.4	980		
9:27	972.4	13.3	64	s.	3.6	1,128	890.9	9.7		73	8.78	s.	4.0	1,106		
9:50	972.5	14.4	63	sse.	3.1	1,010	903.7	10.8	−0.30	66	8.55	s.	4.0	990		
						1,000	904.6	10.8		66	8.55	s.	4.0	980		
9:53	972.6	14.5	60	sse.	3.1	778	929.4	10.1	1.20	69	8.53	s.	4.0	763		
						750	932.3	10.4		68	8.57	s.	3.9	735		
						500	960.8	13.4		62	9.53	sse.	3.3	490		
9:57	972.6	14.7	60	sse.	3.1	396	972.6	14.7		60	10.04	sse.	3.1	388		Cloudless.

TABLE 7.—*Free-air data from kite flights at Drexel Aerological Station, September, 1916*—Continued.

September 23, 1916 (No. 2).

Surface.						At different heights above sea.										Remarks.
Time.	Pressure.	Temperature.	Relative humidity.	Wind.		Altitude.	Pressure.	Temperature.	Δt / 100 m.	Humidity.		Wind.		Potential.		
				Dir.	Vel.					Rel.	Vap. pres.	Dir.	Vel.	Gravity.	Electric.	
P. M.	*mb.*	°*C.*	%		*m. p. s.*	*m.*	*mb.*	°*C.*		%	*mb.*		*m. p. s.*	10^5 *ergs.*	*volts.*	
4:25	969.2	21.7	39	sse.	4.0	396	969.2	21.7		39	10.12	sse.	4.0	388		Cloudless.
						500	957.6	20.1		40	9.41	sse.	4.7	490	0	
4:31	969.2	21.5	40	sse.	3.6	656	940.4	17.6	1.58	42	8.45	sse.	5.7	643	0	
						750	930.0	16.5		45	8.45	sse.	5.7	735	0	
4:51	969.2	21.1	42	sse.	4.0	1,000	902.5	13.6		54	8.41	sse.	5.7	980	0	
						1,115	890.7	12.2	1.18	58	8.24	sse.	5.7	1,093	0	
5:37	969.6	20.1	45	sse.	3.1	1,250	876.2	13.3		35	5.34	sse.	4.6	1,225	320	
						1,269	874.8	13.5	−0.84	32	4.95	sse.	4.5	1,244	360	3/10 Cl.Cu., w.
						1,500	851.0	12.1		35	4.94	sse.	5.3	1,470	860	
						1,750	826.2	10.6		38	4.86	s.	6.1	1,715		
6:21	969.8	19.0	49	s.	2.7	2,000	801.5	9.2		42	4.89	ssw.	6.9	1,960		
						2,235	779.1	7.8	0.73	45	4.76	ssw.	7.7	2,190		10/10 A.Cu., wsw.
						2,000	801.5	9.5		41	4.87	ssw.	7.3	1,960		
						1,750	826.2	11.3		36	4.82	ssw.	7.0	1,715		
						1,500	851.1	13.1		32	4.83	ssw.	6.6	1,470	760	
6:45	969.7	18.4	52	sse.	2.7	1,457	855.7	13.4	−0.65	31	4.76	ssw.	6.5	1,428	660	
6:48	969.7	18.3	52	sse.	2.7	1,271	874.8	12.2	0.74	35	4.97	s.	7.5	1,246	240	7/10 A.Cu., wsw.
						1,250	876.8	12.4		36	5.18	s.	7.5	1,225	190	
						1,000	903.1	14.3		43	7.01	sse.	7.7	980	0	
7:05	969.6	17.6	55	sse.	2.7	745	930.8	16.1	0.73	50	9.15	sse.	8.0	730	0	
						500	957.6	17.9		53	10.87	sse.	4.5	490	0	
7:13	969.7	17.4	56	se.	2.7	456	963.0	18.2	−1.67	53	11.08	sse.	3.9	447	0	
7:17	969.7	17.2	57	se.	3.1	396	969.7	17.2		57	11.18	se.	3.1	388		2/10 A.Cu., wsw.

September 24, 1916 (No. 1).

A. M.																
7:22	970.2	14.2	60	sse.	3.1	396	970.2	14.2		60	9.71	sse.	3.1	388		8/10 A.Cu., w.
						500	958.3	16.0		57	10.36	s.	4.8	490	0	
7:34	970.3	14.2	64	sse.	2.7	715	934.6	19.8	−1.75	52	12.01	sw.	8.2	701	0	2/10 Cl.St., w.
						750	930.7	19.7		52	11.93	sw.	8.1	735	0	
						1,000	903.3	18.6		51	10.93	sw.	7.2	980	0	
						1,250	877.5	17.5		50	10.00	ssw.	6.2	1,225	0	
8:55	970.3	17.6	54	se.	3.1	1,499	853.1	16.5	0.60	49	9.20	ssw.	5.3	1,469	0	
						1,250	878.8	18.4		48	10.16	ssw.	5.8	1,225	0	
						1,000	904.7	20.4		46	11.03	s.	6.4	980	0	1/10 Cl.St., w.
11:00	969.9	23.4	46	sse.	2.7	880	917.0	21.3	−2.07	45	11.40	s.	6.7	863	0	
11:01	969.9	23.4	46	sse.	2.7	745	931.4	18.5	1.23	47	10.01	s.	6.7	730	0	
						500	958.3	21.5		46	11.80	s.	4.5	490	0	
11:10	969.9	22.8	46	s.	3.6	396	969.9	22.8		46	12.77	s.	3.6	388		2/10 Cl.St., w.; few Cu., sse.

September 24, 1916 (No. 2).

P. M.																
1:56	968.6	28.6	35	ssw.	4.9	396	968.6	28.6		35	13.70	ssw.	4.9	388		4/10 Cl., sw.
						500	956.2	25.5		38	12.40	ssw.	7.1	490	0	
2:01	968.6	28.5	35	ssw.	8.0	581	948.5	23.0	3.03	40	11.24	ssw.	8.9	570	0	Arc. of 22°-halo, 1 to 3:50 p. m.
						750	930.2	21.6		42	10.84	ssw.	8.5	735	0	
						1,000	904.0	19.6		46	10.49	s.	8.0	980	0	
2:37	968.4	28.9	34	sse.	6.7	1,154	887.5	18.3	0.82	48	10.09	s.	7.7	1,131	0	4/10 Cl., ssw.; 3/10 Cl.St., ssw.
						1,250	877.5	17.5		45	9.60	s.	7.6	1,225	0	
						1,500	851.8	15.5		49	8.63	s.	7.2	1,470	350	
3:13	968.1	26.6	40	s.	5.8	1,670	834.9	14.1	0.81	49	7.88	s.	6.9	1,637	660	
						1,750	826.2	13.4		50	7.68	s.	7.4	1,715	940	
						2,000	801.3	11.1		53	7.00	s.	9.0	1,960	850	
						2,250	777.0	8.8		56	6.34	ssw.	10.6	2,205	770	
						2,500	754.1	6.5		59	5.71	ssw.	12.2	2,450		
						2,750	732.2	4.2		62	5.12	ssw.	13.7	2,694		
3:58	967.6	25.6	46	s.	2.7	2,774	730.3	4.0	0.91	62	5.04	ssw.	13.8	2,718		7/10 Cl.St., ssw.
						2,750	732.2	4.2		62	5.12	ssw.	13.7	2,694		
						2,500	754.1	6.5		59	5.71	ssw.	12.0	2,450		
						2,250	777.0	8.8		56	6.34	ssw.	10.4	2,205	560	
						2,000	801.3	11.0		53	6.96	s.	8.8	1,960	440	
						1,750	826.2	13.3		50	7.64	s.	7.1	1,715	320	
4:28	967.4	26.0	48	sse.	3.6	1,695	831.8	13.8	1.01	49	7.73	s.	6.7	1,661	290	
						1,500	851.2	15.8		47	8.44	s.	7.1	1,470	0	
						1,250	876.0	18.3		43	9.04	s.	7.5	1,225	0	
4:44	967.3	25.7	49	sse.	3.6	1,220	879.5	18.6	−1.03	43	9.21	s.	7.6	1,196	0	
4:45	967.3	25.7	49	sse.	3.6	1,142	887.5	17.8	0.86	49	9.90	s.	8.6	1,120	0	
						1,000	901.8	19.0		51	11.20	s.	9.3	980	0	
5:02	967.2	25.5	50	sse.	3.6	745	929.2	21.2	1.26	55	13.85	sse.	10.5	730	0	
						500	955.8	24.3		51	15.50	sse.	5.7	490	0	
5:14	967.1	25.6	49	sse.	3.6	396	967.1	25.6		49	16.09	sse.	3.6	388		8/10 Cl.St., ssw.

TABLE 7.—*Free-air data from kite flights at Drexel Aerological Station, September, 1916*—Continued.

September 23, 1916, series (No. 1).

Surface.						At different heights above sea.										Remarks.
Time.	Pressure.	Temperature.	Relative humidity.	Wind.		Altitude.	Pressure.	Temperature.	$\frac{\Delta t}{100\ m.}$	Humidity.		Wind.		Potential.		
				Dir.	Vel.					Rel.	Vap. pres.	Dir.	Vel.	Gravity.	Electric.	
A. M.	*mb.*	*° C.*	%		*m. p. s.*	*m.*	*mb.*	*° C.*		%	*mb.*		*m. p. s.*	*10⁵ ergs.*	*volts.*	
7:26	966.8	17.3	82	SSW.	5.8	396	966.8	17.3	.....	82	16.20	SSW.	5.8	388	.....	1/10 St.Cu., sw.
						500	955.0	18.0	.....	75	15.48	SSW.	9.1	490	0	
7:28	967.0	17.4	82	SSW.	5.8	601	944.1	18.7	—0.68	68	14.67	SSW.	12.4	589	0	
						750	927.6	17.8	.....	70	14.27	SSW.	11.3	735	0	
						1,000	900.2	16.3	.....	72	13.34	SW.	9.3	980	210	
7:46	967.1	18.1	79	SSW.	5.8	1,174	883.1	15.3	0.47	74	12.86	SW.	8.0	1,151	380	
						1,250	875.0	14.7	.....	76	12.71	SW.	8.6	1,225	510	
						1,500	849.8	12.6	.....	83	12.11	SW.	10.4	1,470	920	
7:58	967.2	18.6	79	SW.	6.3	1,519	848.0	12.4	0.84	84	12.10	SW.	10.5	1,489	950	1/10 St.Cu., sw.
						1,750	824.8	10.6	.....	85	10.86	SW.	10.7	1,715	1,610	
						2,000	800.0	8.6	.....	85	9.49	SW.	10.9	1,960	1,970	
						2,250	776.2	6.7	.....	86	8.44	SW.	11.1	2,205	2,330	
8:28	966.9	19.9	73	SSW.	7.2	2,301	771.8	6.3	0.78	86	8.21	SW.	11.1	2,255	2,400	
						2,500	753.0	5.2	.....	81	7.17	SW.	11.1	2,450	2,620	
						2,750	730.5	3.8	.....	75	6.02	SW.	11.0	2,694	2,890	
8:48	966.6	20.6	70	SSW.	7.2	2,846	722.2	3.3	0.55	73	5.65	SW.	11.0	2,788	3,000	
						3,000	708.4	2.6	.....	68	5.01	SW.	9.3	2,939	3,000	
						3,250	687.3	1.5	.....	59	5.02	SW.	6.6	3,184	.....	
10:20	966.0	25.0	55	SW.	6.7	3,474	668.7	0.5	0.50	52	3.29	SW.	4.2	3,403	.....	Few Cl.St., wsw.
						3,250	687.3	1.7	.....	54	3.73	SW.	6.5	3,184	.....	
						3,000	708.4	3.1	.....	57	4.35	SW.	9.1	2,939	3,130	
10:48	965.6	25.5	51	SSW.	8.9	2,824	723.7	4.0	0.79	59	4.80	SW.	10.9	2,767	3,500	2/10 Cl.St., wsw; few Cu., sw.
						2,750	730.5	4.8	.....	60	5.16	SW.	11.0	2,694	3,380	
						2,500	753.0	6.6	.....	63	6.14	SSW.	11.5	2,450	2,970	
						2,250	776.2	8.5	.....	66	7.33	SSW.	11.0	2,205	2,560	
11:02	965.5	25.5	50	SW.	8.0	2,215	779.3	8.8	0.65	66	7.48	SSW.	12.1	2,171	2,500	22°-halo, 11:15 to 11:52 a. m.
						2,000	800.0	10.2	.....	68	8.47	SSW.	11.1	1,960	1,930	
						1,750	823.9	11.8	.....	70	9.69	SSW.	10.0	1,715	1,270	
						1,500	848.8	13.4	.....	72	11.07	SSW.	8.9	1,470	700	
11:20	965.2	26.0	51	S.	4.9	1,399	859.2	14.1	1.00	73	11.75	SSW.	8.5	1,371	640	3/10 Cl.St., wsw.; 3/10 Cu., sw.
						1,250	874.4	15.6	.....	71	12.58	SSW.	8.6	1,225	550	
						1,000	900.0	18.1	.....	68	14.12	SSW.	8.8	980	390	
11:37	964.9	26.6	49	SW.	6.3	797	921.6	20.1	1.42	65	15.29	SSW.	9.0	781	250	3/10 Cl.St., wsw.; 4/10 Cu., sw.
						750	926.5	20.8	.....	63	15.48	SSW.	8.8	735	210	
						500	953.1	24.3	.....	55	16.71	SSW.	7.7	490	40	
11:45	964.7	25.8	18.6	SSW.	5.1	396	964.7	25.8	.....	51	16.95	SSW.	7.2	388	.....	

September 25, 1916, series (No. 2).

P. M.																
12:27	964.1	27.2	48	SSW.	10.7	396	964.1	27.2	.....	48	17.32	SSW.	10.7	388	.....	3/10 Cl.St., wsw.; 6/10 Cu., ssw.
						500	952.9	25.1	.....	51	16.25	SSW.	9.9	490	0	
12:32	964.0	27.1	47	SSW.	7.6	735	927.2	20.3	2.03	59	14.05	SSW.	8.0	721	0	
						750	925.5	20.1	.....	65	14.02	SSW.	8.5	735	0	
						1,000	898.7	17.5	.....	69	13.80	SSW.	8.9	980	0	
						1,250	872.2	15.0	.....	79	13.47	SSW.	9.7	1,225	330	
						1,500	846.8	12.4	.....	88	12.67	SSW.	10.6	1,470	940	
1:04	963.5	27.5	46	SSW.	7.6	1,515	845.7	12.2	1.04	89	12.65	SSW.	10.6	1,485	980	2/10 Cl.St., wsw.; 7/10 Cu., ssw.
						1,750	821.9	10.9	.....	79	10.30	SSW.	10.3	1,715	1,260	
						2,000	797.4	9.4	.....	69	8.14	SSW.	10.0	1,960	1,550	
						2,250	773.5	8.0	.....	59	6.33	SW.	9.7	2,205	1,840	
2:08	962.7	27.5	42	SW.	8.0	2,494	751.0	6.6	0.76	49	4.78	SW.	9.4	2,444	2,030	
						2,500	750.0	6.6	.....	49	4.78	SW.	9.4	2,450	2,030	
						2,750	727.8	4.8	.....	46	3.96	SW.	9.8	2,694	2,090	
						3,000	705.8	3.1	.....	44	3.36	SW.	10.2	2,939	.....	
2:24	962.4	27.9	40	SW.	5.8	3,164	691.9	1.9	0.78	42	2.94	SW.	10.4	3,100	.....	5/10 A.St., wsw.; 4/10 Ci.St., wsw.
						3,000	705.8	2.9	.....	43	3.24	SW.	10.2	2,939	.....	
						2,750	728.0	5.5	.....	45	4.06	SW.	9.7	2,694	2,290	
						2,500	751.0	7.7	.....	48	5.04	WSW.	9.3	2,450	2,080	
						2,250	774.1	9.8	.....	50	6.06	WSW.	8.9	2,205	1,710	
2:42	962.1	28.4	41	SW.	8.5	2,206	778.4	10.2	—3.53	50	6.22	WSW.	8.8	2,162	1,640	
2:43	962.1	28.3	41	SW.	8.5	2,189	779.9	9.6	0.58	50	5.98	WSW.	8.8	2,145	1,620	
						2,000	797.6	10.7	.....	57	7.34	WSW.	9.5	1,960	1,380	
						1,750	821.9	12.2	.....	66	9.38	SW.	10.5	1,715	1,060	
2:56	961.9	28.5	41	SSW.	9.4	1,574	839.2	13.2	1.10	73	11.07	SW.	11.2	1,543	835	
						1,500	846.4	14.0	.....	71	11.35	SW.	11.3	1,470	665	
						1,250	871.6	16.8	.....	65	12.43	SSW.	11.5	1,225	90	
3:06	961.7	28.7	40	SSW.	9.4	1,210	875.9	17.2	1.25	64	12.56	SSW.	11.5	1,186	0	
						1,000	897.5	18.8	.....	57	12.37	SSW.	11.0	980	0	
3:17	961.6	28.5	38	SSW.	10.7	777	920.8	22.6	1.44	50	13.72	SSW.	10.5	762	0	6/10 Cl.St., wsw.
						750	923.5	23.0	.....	49	13.77	SSW.	10.3	735	0	
						500	950.0	26.6	.....	42	14.63	SSW.	8.1	490	0	
3:26	961.5	28.1	39	SSW.	7.2	396	961.5	28.1	.....	39	14.83	SSW.	7.2	388	.....	

TABLE 7.—*Free-air data from kite flights at Drexel Aerological Station, September, 1916*—Continued.

September 25, 1916, series (No. 3).

Surface.						At different heights above sea.										
Time.	Pressure.	Temperature.	Relative humidity.	Wind.		Altitude.	Pressure.	Temperature.	$\frac{\Delta t}{100\ m.}$	Humidity.		Wind.		Potential.		Remarks.
				Dir.	Vel.					Rel.	Vap. pres.	Dir.	Vel.	Gravity.	Electric.	
P. M.	*mb.*	°*C.*	%		*m. p. s.*	*m.*	*mb.*	°*C.*		%	*mb.*		*m. p. s.*	*10⁵ ergs.*	*volts.*	
4:05	961.1	28.0	39	SSW.	11.6	396	961.1	28.0	.....	39	14.75	SSW.	11.6	388	.....	
						500	949.8	26.6	.....	40	13.93	SSW.	11.3	490	0	
						750	923.0	23.1	.....	42	11.87	SSW.	10.6	735	0	
4:10	961.1	27.5	39	SSW.	11.2	768	921.1	22.9	1.37	42	11.73	SSW.	10.5	753	0	
						1,000	897.0	20.0	.....	52	12.16	SW.	10.2	980	0	
4:20	961.0	27.0	42	SW.	8.9	1,154	880.9	18.1	1.24	58	12.05	SW.	10.0	1,131	0	
						1,250	870.8	17.4	.....	57	11.33	SW.	9.9	1,225	180	
						1,500	845.0	15.4	.....	56	9.80	SW.	9.5	1,470	660	
						1,750	820.2	13.5	.....	54	8.35	SW.	9.1	1,715	970	
						2,000	797.0	11.6	.....	52	7.10	SW.	8.7	1,960	1,150	
4:46	960.9	27.6	43	SW.	6.7	2,132	784.5	10.6	0.77	51	6.52	SW.	8.5	2,089	1,240	7/10 Cl., WSW.
						2,250	773.5	10.0	.....	48	5.89	SW.	8.4	2,205	1,350	
						2,500	750.2	8.6	.....	43	4.08	WSW.	8.2	2,450	1,450	
5:20	960.7	26.6	43	SSW.	6.3	2,574	743.4	8.2	0.54	41	4.46	WSW.	8.1	2,522	1,390	
						2,750	727.5	6.6	.....	42	4.10	WSW.	8.2	2,694	1,670	
						3,000	705.5	4.2	.....	44	3.63	WSW.	8.4	2,939	.....	
						3,250	684.0	1.9	.....	45	3.15	WSW.	8.6	3,184	.....	
5:53	960.4	25.5	47	SSW.	4.5	3,371	674.0	0.8	0.92	46	2.98	WSW.	8.7	3,302	.....	
						3,250	684.0	1.9	.....	46	3.22	WSW.	8.7	3,184	.....	
						3,000	705.5	4.1	.....	45	3.69	WSW.	8.6	2,939	.....	
						2,750	727.5	6.4	.....	44	4.23	WSW.	8.5	2,694	1,680	
6:12	960.4	24.7	49	S.	4.0	2,559	744.8	8.1	0.58	44	4.75	WSW.	8.5	2,507	1,390	
						2,500	750.2	8.4	.....	44	4.85	WSW.	8.2	2,450	1,310	
						2,250	773.5	9.9	.....	45	5.49	SW.	7.0	2,205	1,100	
6:27	960.4	24.4	50	S.	3.1	2,112	786.1	10.7	0.68	45	5.79	SW.	6.3	2,070	1,010	
						2,000	797.1	11.5	.....	50	6.78	SW.	7.2	1,960	920	
						1,750	821.0	13.2	.....	60	9.10	SSW.	9.3	1,715	710	
6:38	960.4	24.2	51	S.	3.6	1,611	834.7	14.1	1.18	66	10.62	SSW.	10.5	1,579	590	1/10Cl.St., WSW.; 8/10A.St., WSW.
						1,500	845.8	15.1	.....	63	11.02	SSW.	10.4	1,470	440	
						1,250	870.8	18.4	.....	56	11.85	SSW.	10.2	1,225	100	
6:52	960.4	24.2	52	S.	4.0	1,180	877.7	19.2	1.10	54	12.02	SSW.	10.2	1,157	0	
						1,000	896.7	21.2	.....	50	12.59	SSW.	10.5	980	0	
7:03	960.4	24.0	53	S.	3.6	762	921.1	23.8	0.82	44	12.98	SSW.	10.8	747	0	
						750	922.5	23.9	.....	44	13.05	SSW.	10.8	735	0	
7:08	960.5	24.0	55	S.	4.0	505	918.6	25.9	−1.74	43	14.37	S.	10.1	495	0	
7:09	960.5	24.0	55	S.	4.0	396	960.5	24.0	.....	55	16.41	S.	4.0	388	.....	3/10 Cl.St., WSW.

September 25, 1916, series (No. 4).

P. M.																
7:40	960.7	23.6	56	S.	4.0	396	960.7	23.6	.....	56	16.31	S.	4.0	388	.....	2/10Cl.St., WSW.; 4/10 A.St., WSW.
						500	949.1	24.5	.....	51	15.68	S.	9.2	490	0	
7:41	960.7	23.6	56	S.	4.0	622	936.2	25.6	−0.88	45	14.78	S.	15.4	610	0	
						750	922.2	24.7	.....	44	13.60	SSW.	12.2	735	0	
7:47	960.7	23.2	56	S.	4.0	870	915.2	24.2	0.71	44	13.29	SSW.	10.5	804	0	2/10 Cl.St., WSW.
						1,000	896.5	22.0	.....	47	12.43	SSW.	10.5	980	0	
7:56	960.8	23.2	56	S.	4.5	1,163	879.9	20.0	1.22	49	11.46	SSW.	10.5	1,140	0	
						1,250	871.0	19.0	.....	52	11.42	SSW.	10.7	1,225	0	
						1,500	845.8	16.2	.....	59	10.87	SW.	11.3	1,470	0	
8:10	960.8	22.8	59	S.	4.0	1,624	833.8	14.8	1.13	63	10.60	SW.	11.6	1,592	0	
						1,750	821.0	14.1	.....	59	9.49	SW.	10.6	1,715	200	
						2,000	797.0	12.6	.....	46	6.71	WSW.	8.6	1,960	610	
8:41	960.8	22.5	59	S.	4.0	2,156	782.4	11.7	0.58	44	6.05	WSW.	7.3	2,113	830	Cloudless.
						2,250	773.5	11.1	.....	45	5.94	WSW.	7.3	2,205	890	
						2,500	750.2	9.4	.....	48	5.66	WSW.	7.3	2,450	1,070	
9:12	960.8	22.2	59	S.	4.5	2,588	742.9	8.8	0.67	48	5.44	WSW.	7.3	2,536	1,150	
						2,750	728.0	7.4	.....	45	4.64	WSW.	7.9	2,694	1,310	
						3,000	706.5	5.2	.....	41	3.63	WSW.	8.7	2,939	1,550	
						3,250	685.5	3.0	.....	37	2.80	WSW.	9.6	3,184	.....	
						3,500	664.5	0.8	.....	33	2.14	WSW.	10.5	3,429	.....	
9:33	960.8	22.5	58	S.	4.9	3,506	664.1	0.7	0.87	33	2.12	WSW.	10.5	3,434	.....	
						3,500	664.5	0.8	.....	33	2.14	WSW.	10.5	3,429	.....	
						3,250	685.5	2.9	.....	37	2.79	WSW.	9.9	3,184	.....	
						3,000	706.5	5.0	.....	40	3.49	WSW.	9.3	2,939	1,500	
						2,750	728.0	7.2	.....	44	4.47	WSW.	8.7	2,694	1,190	
9:52	960.8	22.0	60	S.	4.5	2,688	733.9	7.7	0.72	45	4.73	WSW.	8.6	2,634	1,130	1/10 Cl.St., WSW.
						2,500	750.2	9.1	.....	45	5.20	WSW.	8.2	2,450	1,020	
						2,250	773.5	10.9	.....	46	6.00	SW.	7.6	2,205	880	
10:08	960.7	22.0	60	S.	4.5	2,122	785.5	11.8	0.58	46	6.37	SW.	7.3	2,080	810	Increasing cloudiness.
						2,000	796.8	12.5	.....	50	7.24	SW.	8.0	1,960	670	
						1,750	820.8	14.0	.....	60	9.59	SW.	9.5	1,715	380	
10:23	960.6	22.2	59	S.	5.9	1,572	838.5	15.0	1.11	66	11.25	SW.	10.3	1,541	170	
						1,500	845.5	15.8	.....	64	11.49	SW.	10.9	1,470	150	
						1,250	870.7	18.6	.....	57	12.22	SW.	12.4	1,225	70	
10:35	960.6	22.1	60	SSW.	6.3	1,157	879.9	19.6	0.88	55	12.55	SW.	13.0	1,132	40	3/10 Cl.St., WSW.
						1,000	896.2	21.0	.....	52	12.93	SW.	14.0	980	0	
						750	922.2	23.2	.....	48	13.65	SW.	15.6	735	0	
10:45	960.5	22.2	58	SSW.	7.2	680	929.7	23.8	.....	47	13.86	SW.	16.0	667	0	
10:49	960.5	22.2	58	SSW.	7.2	660	931.4	24.2	.....	46	13.89	SW.	17.3	647	0	
						500	949.0	22.7	.....	54	14.90	SSW.	10.6	490	0	
10:55	960.4	21.8	60	SSW.	6.3	396	960.4	21.8	.....	60	15.67	SSW.	6.3	388	.....	

TABLE 7.—*Free-air data from kite flights at Drexel Aerological Station, September, 1916*—Continued.

September 25-26, 1916, series (No. 5).

Surface.						At different heights above sea.										
Time.	Pressure.	Temperature.	Relative humidity.	Wind.		Altitude.	Pressure.	Temperature.	$\frac{\Delta t}{100\ m.}$	Humidity.		Wind.		Potential.		Remarks.
				Dir.	Vel.					Rel.	Vap. pres.	Dir.	Vel.	Gravity.	Electric.	
P. M.	*mb.*	*° C.*	*%*		*m. p. s.*	*m.*	*mb.*	*° C.*		*%*	*mb.*		*m. p. s.*	*10^5 ergs.*	*volts.*	
11:27	960.4	21.6	60	s.	6.7	396	960.4	21.6	.....	60	15.48	s.	6.7	388	.....	3/10 Cl. St., wsw.; 3/10 A. St., wsw.
						500	948.8	22.0	.....	58	15.34	s.	11.1	490	0	
11:30	960.4	21.6	60	ssw.	6.7	711	926.1	22.7	−0.35	54	14.90	ssw.	19.9	697	0	
						750	922.0	22.4	.....	54	14.63	ssw.	19.8	735	0	Decreasing cloudiness.
						1,000	895.5	20.7	.....	52	12.70	ssw.	19.2	980	0	
11:42	960.4	21.4	60	ssw.	7.2	1,081	887.5	20.1	0.70	52	12.24	ssw.	19.0	1,060	0	
						1,250	870.1	18.5	.....	55	11.72	ssw.	16.9	1,225	60	
						1,500	845.0	16.2	.....	60	11.05	sw.	13.8	1,470	160	
11:57	960.4	21.1	60	ssw.	7.6	1,523	842.8	16.0	0.93	60	10.91	sw.	13.5	1,493	170	Wind increasing from surface up to about 1,000 m.
						1,750	820.0	14.4	.....	51	8.36	sw.	11.8	1,715	560	
						2,000	796.0	12.7	.....	40	5.88	wsw.	9.8	1,960	860	
A. M.																
12:35	960.0	20.3	65	ssw.	6.7	2,084	788.0	12.1	0.70	37	5.22	wsw.	9.2	2,042	930	
						2,250	772.4	10.1	.....	39	4.82	wsw.	8.4	2,205	1,100	1/10 A. St., wsw.
						2,500	749.2	9.3	.....	42	4.92	wsw.	7.2	2,450	.....	
1:13	959.8	20.3	66	ssw.	5.8	2,699	731.8	7.9	0.81	45	4.79	wsw.	6.3	2,645	.....	
						2,500	749.2	9.8	.....	41	4.97	wsw.	7.4	2,450	.....	
						2,250	772.0	12.1	.....	36	5.08	wsw.	8.8	2,205	1,260	
1:38	959.8	20.2	67	ssw.	6.7	2,178	778.8	12.8	−1.10	35	5.17	wsw.	9.2	2,134	1,140	
1:44	959.8	20.2	68	ssw.	5.4	2,033	792.6	11.2	0.72	52	6.92	wsw.	12.0	1,992	1,040	
						2,000	795.3	11.4	.....	53	7.14	wsw.	12.0	1,960	1,020	
						1,750	819.2	13.2	.....	64	9.70	sw.	12.2	1,715	850	
1:55	959.8	20.2	68	ssw.	6.3	1,643	830.2	14.0	0.91	69	11.03	sw.	12.3	1,610	780	1/10 St. Cu., sw.
						1,500	844.0	15.3	.....	67	11.64	sw.	15.1	1,470	410	
						1,250	869.2	17.6	.....	63	12.68	ssw.	20.0	1,225	110	
2:15	959.8	20.1	70	ssw.	6.7	996	895.5	19.9	1.14	59	13.71	ssw.	25.0	976	0	(*)
2:21	959.8	20.1	70	ssw.	5.8	856	910.0	21.5	−1.35	56	14.36	ssw.	21.8	839	0	2/10 St. Cu., sw.
						750	921.4	21.1	.....	59	14.77	ssw.	17.8	735	0	
						500	948.5	20.3	.....	68	16.20	ssw.	8.4	490	0	
2:32	959.8	19.9	71	ssw.	4.5	396	959.8	19.9	.....	71	16.50	ssw.	4.5	388	.....	2/10 St. Cu., sw.

*Distant lightning occasionally in nne.; continued at end of flight.

September 26, 1916, series (No. 6).

A. M.																
3:18	959.9	19.2	75	ssw.	3.6	396	959.9	19.2	.....	75	16.69	ssw.	3.6	388	.....	(*)
						500	948.3	19.8	.....	71	16.40	ssw.	7.2	490	0	1/10 Cl. St., w.
3:23	959.9	19.4	75	ssw.	3.6	726	923.9	21.0	−0.54	63	15.67	sw.	15.0	712	0	
						750	921.4	20.8	.....	63	15.48	sw.	15.3	735	0	
						1,000	894.7	18.7	.....	66	14.24	sw.	19.2	980	0	
3:35	960.0	19.1	76	ssw.	2.7	1,079	886.9	18.0	0.85	67	13.83	sw.	20.0	1,058	0	
						1,250	869.0	16.5	.....	68	12.76	sw.	18.1	1,225	330	
						1,500	844.0	14.2	.....	70	11.33	wsw.	15.3	1,470	820	
3:48	960.0	18.5	78	ssw.	3.1	1,534	840.6	13.9	0.90	70	11.12	wsw.	14.9	1,504	800	
						1,750	819.1	12.2	.....	71	10.09	wsw.	13.5	1,715	1,100	
3:58	960.1	18.4	79	sw.	2.2	1,870	807.6	11.2	0.80	72	9.58	wsw.	12.8	1,833	1,220	Lightning last seen about 4*.
						2,000	795.0	10.3	.....	70	8.77	wsw.	12.7	1,960	1,340	
						2,250	771.1	8.6	.....	66	7.37	wsw.	12.6	2,205	1,590	
						2,500	748.0	6.9	.....	62	6.17	w.	12.5	2,450	1,920	
4:27	960.0	18.0	80	ssw.	2.7	2,692	731.1	5.6	0.68	59	5.37	w.	12.4	2,638	2,170	1/10 Cl. St., w.
						2,750	726.0	5.2	.....	59	5.22	w.	12.1	2,694	2,250	
						3,000	704.0	3.6	.....	58	4.59	w.	11.3	2,939	2,580	
						3,250	682.5	2.1	.....	56	3.98	w.	9.6	3,184	.....	
4:53	959.8	17.9	82	ssw.	2.2	3,318	676.8	1.6	0.76	56	3.84	w.	9.2	3,250	.....	
						3,250	682.5	2.2	.....	55	3.94	w.	9.4	3,184	.....	
						3,000	703.5	4.4	.....	50	4.18	w.	10.3	2,939	2,570	
5:04	959.8	17.4	84	ssw.	3.6	2,786	722.2	6.3	0.43	46	4.39	w.	11.1	2,730	2,000	2/10 Cl. St., w.
						2,750	725.2	6.5	.....	47	4.55	w.	11.4	2,694	1,950	
						2,500	747.6	7.5	.....	56	5.81	w.	13.5	2,450	1,570	
5:20	959.7	17.2	84	s.	3.1	2,303	765.9	8.4	0.60	63	6.94	w.	15.1	2,257	1,280	
						2,250	770.8	8.7	.....	63	7.09	w.	15.0	2,205	1,230	
						2,000	794.3	10.2	.....	63	7.84	w.	14.3	1,960	1,010	
						1,750	818.3	11.7	.....	62	8.52	w.	13.7	1,715	780	
5:31	959.6	17.0	84	s.	3.6	1,666	826.4	12.2	0.55	62	8.81	w.	13.5	1,633	705	
						1,500	842.8	13.1	.....	68	10.25	w.	12.4	1,470	470	
						1,250	867.9	14.5	.....	77	12.71	w.	10.6	1,225	130	
5:45	959.5	16.8	86	s.	4.0	1,160	877.3	15.0	0.58	80	13.64	w.	10.0	1,137	0	
						1,000	893.5	15.9	.....	77	13.91	w.	9.8	980	0	
5:54	959.4	16.8	85	s.	4.5	749	920.7	17.4	0.53	72	14.31	wsw.	9.4	734	0	2/10 Ci. St., w.; 1/10 St. Cu., wsw.
						500	948.0	18.7	.....	72	15.53	sw.	8.8	490	0	
6:02	959.4	17.0	84	s.	3.6	483	949.8	18.8	−2.18	72	15.62	sw.	7.8	474	0	
6:06	959.4	16.9	84	s.	3.1	396	959.4	16.9	.....	84	16.17	s.	3.1	388	.....	4/10 Cl. St., w.; 1/10 St. Cu., wsw.

* Distant flashes of lightning in nnw. and occasionally in nne.

September 26, 1916, series (No. 7).

A. M.																
6:51	959.1	16.8	87	s.	4.0	396	959.1	16.8	.....	87	16.64	s.	4.0	388	.....	6/10 Cl. St., w.; 3/10 St. Cu., wsw.
						500	947.8	17.5	.....	78	15.60	ssw.	7.5	490	0	
6:53	959.1	17.0	86	s.	4.0	577	939.0	18.3	−0.72	72	15.14	ssw.	10.1	566	0	
						750	920.5	16.9	.....	76	14.63	ssw.	7.6	735	0	
7:00	959.1	17.1	85	s.	4.0	858	919.6	16.8	0.83	76	14.54	ssw.	7.5	742	0	4/10 Cl. St., w.; 5/10 A. Cu., wsw.
8:58	959.4	20.3	74	sw.	5.8	912	903.5	14.8	1.29	85	14.31	wsw.	5.4	894	0	
						1,000	894.2	14.3	.....	86	14.02	wsw.	5.6	980	40	9/10 A. Cu., wsw.
						1,250	868.2	12.8	.....	88	13.01	wsw.	6.2	1,225	220	
						1,500	842.5	11.3	.....	90	12.05	wsw.	6.8	1,470	400	
						1,750	817.6	9.8	.....	92	11.15	sw.	7.4	1,715	580	
						2,000	793.4	8.3	.....	94	10.29	sw.	8.0	1,960	760	
9:07	959.3	20.3	75	sw.	4.5	2,174	777.0	7.3	0.59	95	9.72	sw.	8.4	2,131	890	Clouds increasing and becoming heavier.
						2,250	769.6	6.9	.....	92	9.15	sw.	9.1	2,205	1,000	
						2,500	746.2	5.7	.....	82	7.51	sw.	11.3	2,450	1,380	
						2,750	723.3	4.5	.....	72	6.06	wsw.	13.5	2,694	1,750	
						3,000	701.3	3.3	.....	61	4.72	wsw.	15.7	2,939	2,120	

TABLE 7.—*Free-air data from kite flights at Drexel Aerological Station, September, 1916*—Continued.

September 26, 1016, series (No. 7)—Continued.

Surface.						At different heights above sea.										Remarks.
Time.	Pressure.	Temperature.	Relative humidity.	Wind.		Altitude.	Pressure.	Temperature.	$\frac{\Delta t}{100\ m.}$	Humidity.		Wind.		Potential.		
				Dir.	Vel.					Rel.	Vap. pres.	Dir.	Vel.	Gravity.	Electric.	
A. M.	*mb.*	°*C.*	%		*m.p.s.*	*m.*	*mb.*	°*C.*		%	*mb.*		*m.p.s.*	10^5 *ergs.*	*volts.*	
10:09	958.4	21.7	69	ssw.	4.5	3,255	680.0	2.0	0.50	51	3.60	wsw.	18.0	3,189	2,500	6/10 A.Cu., sw.; 4/10 St. Cu., sw.
						3,000	701.3	3.3		62	4.80	wsw.	16.0	2,939	2,140	
						2,750	723.3	4.5		74	6.23	wsw.	14.0	2,694	1,820	
						2,500	746.2	5.8		85	7.84	wsw.	12.0	2,450	1,520	
						2,250	769.6	7.1		96	9.69	wsw.	10.1	2,205	1,230	
10:44	958.2	21.8	70	ssw.	5.8	2,202	773.9	7.3	0.77	98	10.03	wsw.	9.7	2,158	1,170	10/10 St.Cu., ssw. Alt. base of St.Cu. about 1,200m.
						2,000	793.2	8.9		95	10.83	wsw.	9.2	1,960	920	
						1,750	87.2	10.8		91	11.78	sw.	8.5	1,715	610	
						1,500	841.9	12.7		87	12.78	ssw.	7.9	1,470	300	
11:03	958.1	22.0	69	ssw.	6.3	1,363	855.4	13.8	−0.57	85	13.41	ssw.	7.5	1,336	0	
						1,250	867.1	13.2		91	13.80	ssw.	7.7	1,225	0	
11:05	958.0	22.0	69	ssw.	6.3	1,223	869.8	13.0	0.90	93	13.93	ssw.	7.7	1,199	0	
						1,000	893.0	15.0		87	14.83	ssw.	6.9	980	0	
						750	919.5	17.2		81	15.89	ssw.	5.9	735	0	
11:21	957.9	22.1	70	ssw.	4.9	688	926.1	17.8	1.37	79	16.10	ssw.	5.7	675	0	4/10 Cl.St., sw.; 6/10 St.Cu., ssw.
						500	946.1	20.4		74	17.74	s.	4.6	490	0	
11:26	957.8	21.8	71	s.	4.0	396	957.8	21.8		71	18.55	s.	4.0	388		

September 26, 1916, series (No. 8).

P. M.																
12:31	956.5	23.5	66	s.	3.6	396	956.5	23.5		66	19.11	s.	3.6	388		
						500	945.0	21.9		71	18.66	s.	4.6	490	0	
12:38	956.3	22.9	67	s.	4.5	754	917.5	18.1	1.51	83	17.24	s.	7.1	739	0	10/10 St. Cu., ssw.
						1,000	891.4	16.5		86	16.14	ssw.	8.1	980		
1:03	955.7	22.5	71	s.	6.3	1,211	869.3	15.1	0.60	88	15.10	ssw.	9.0	1,187		Rain began 12:56 p. m.
						1,250	865.2	14.8		88	14.81	ssw.	9.2	1,225		1:10 p. m. potential fluctuating
						1,500	839.7	12.9		92	13.69	ssw.	10.2	1,470		from 0 to 6,000 volts at 1,200m.
						1,750	815.0	11.0		95	12.47	sw.	11.2	1,715	830	
						2,000	791.0	9.2		88	10.24	sw.	12.3	1,960	1,030	Rain ended 1:30 p. m.
1:46	955.2	22.8	69	sw.	4.5	2,101	781.3	8.4	0.75	99	10.91	sw.	12.7	2,059	1,205	2/10 Cl.St., wsw.; 7/10 St.Cu., ssw
						2,250	767.3	7.4		99	10.20	sw.	13.9	2,205	1,610	
						2,500	744.0	5.7		99	9.07	sw.	16.0	2,450	2,290	
						2,750	721.0	4.1		100	8.19	ssw.	18.0	2,694	(*)	
2:31	954.0	23.2	68	ssw.	2.7	2,939	704.7	2.8	0.72	100	7.47	ssw.	19.6	2,879		10/10 St.Cu., ssw.
						2,750	726.6	4.3		100	8.31	ssw.	18.4	2,694		
						2,500	742.8	6.2		100	9.48	ssw.	16.9	2,450	2,870	
						2,250	765.8	8.1		100	10.80	ssw.	15.4	2,205	3,930	
3:16	952.9	23.6	67	ssw.	1.8	2,216	769.1	8.4	1.41	100	11.02	ssw.	15.2	2,172	3,770	
3:23	952.8	23.7	68	ssw.	1.3	2,018	787.5	11.2	0.23	82	10.91	ssw.	13.7	1,978	2,860	
						2,000	789.2	11.2		83	11.04	ssw.	13.5	1,960	2,780	
						1,750	813.3	11.8		94	13.01	ssw.	11.1	1,715	1,630	
3:37	952.8	23.9	68	sw.	1.3	1,632	824.8	12.1	0.78	100	14.12	ssw.	10.0	1,600	1,090	
						1,500	837.8	13.1		98	14.78	ssw.	9.3	1,470	490	
						1,250	862.8	15.1		95	16.30	sw.	8.0	1,225	0	
3:53	952.6	23.2	71	wnw.	2.2	1,029	885.3	16.8	0.96	92	17.60	sw.	6.8	1,009	0	
						1,000	888.1	17.1		91	17.74	sw.	6.6	980	0	
						750	914.5	19.5		84	19.04	wsw.	5.2	735	0	
						500	941.2	21.9		77	20.24	wnw.	3.7	490	0	
4:02	952.6	22.9	74	nnw	3.1	396	952.6	22.9		74	20.67	nnw.	3.1	388		9/10 St.Cu., sw.

* 2:05 p. m. electrical potential 2,500 volts and higher at 2,578m.

September 27, 1916.

A. M.																
10.37	957.5	19.4	50	wnw.	5.4	396	957.5	19.4		50	11.26	wnw.	5.4	388		2/10 Cu., wnw.
						500	946.0	17.6		53	10.67	wnw.	6.2	490	0	
10:47	957.6	18.8	50	nw.	5.4	729	920.8	13.7	1.71	61	9.56	nw.	8.0	715	30	Surface wind increasing.
						750	918.2	13.5		61	9.44	nw.	8.1	735	50	
						1,000	891.5	10.9		62	8.08	nw.	9.1	980	270	
						1,250	865.5	8.4		72	7.93	nw.	10.1	1,225	620	
11:21	957.7	19.6	45	nw.	4.9	1,393	850.3	6.9	1.02	75	7.46	nw.	10.5	1,366	900	
						1,500	839.9	6.2		74	7.02	nw.	11.1	1,450	1,220	
						1,750	814.3	4.4		73	6.11	nw.	12.6	1,715	1,970	
						2,000	789.3	2.7		71	5.28	nw.	14.1	1,960	2,710	
11:48	957.7	20.4	39	nw.	7.6	2,144	775.3	1.7	0.69	70	4.84	nw.	15.0	2,101	2,890	
						2,250	765.3	0.8		69	4.46	nw.	14.9	2,205	2,980	Few Cu., wnw.
						2,500	742.0	−1.4		68	3.70	w.	14.6	2,450	3,180	
P. M.																
12:39	958.2	21.2	36	wnw.	5.8	2,733	721.0	−3.4	0.87	66	3.04	w.	14.3	2,678	3,920	
						2,750	719.5	−3.0		62	2.94	w.	14.4	2,694	3,980	
12:42	958.2	21.4	35	wnw.	6.7	2,799	715.0	−2.0	−2.12	52	2.69	w.	14.7	2,742	4,030	
						3,000	697.5	−3.6		51	2.31	w.	11.5	2,939	4,180	Cu. base about 2,250 m.
						3,250	676.0	−5.6		49	1.87	w.	7.2	3,184	4,370	
						3,500	655.0	−7.0		48	1.62	w.	4.8	3,429		
1:36	958.6	20.4	38	nw.	8.0	3,627	644.2	−8.7	0.82	47	1.37	w.	1.5	3,553		3/10 Cu., nw.
						3,500	655.2	−7.7		46	1.46	w.	3.0	3,429		
						3,250	676.5	−5.6		45	1.71	w.	6.0	3,184	3,720	
						3,000	698.0	−3.6		43	1.94	wnw.	8.9	2,939	3,350	Cu. base about 2,000 m.
2:13	958.9	20.0	38	nw.	7.2	2,757	719.5	−1.6	−1.12	42	2.25	wnw.	11.8	2,701	3,000	
						2,750	720.2	−1.7		43	2.28	wnw.	11.9	2,694	2,990	
2:21	958.9	20.6	35	nw.	7.6	2,614	732.8	−3.2	1.54	56	2.62	wnw.	13.3	2,561	2,790	
						2,500	743.3	−1.4		53	2.89	wnw.	13.8	2,450	2,620	
2:24	959.0	20.6	35	nw.	8.0	2,439	749.3	−0.5	0.75	52	3.05	wnw.	14.0	2,390	2,530	
						2,250	767.0	+1.3		56	3.76	wnw.	12.7	2,205	2,260	
						2,000	791.0	+2.8		60	4.48	wnw.	11.1	1,960	1,780	2/10 A.Cu., wsw.; 3/10 Cu., wnw.
						1,750	815.4	+4.7		65	5.55	wnw.	9.4	1,715	1,230	
2:52	959.3	19.7	42	nw.	6.7	1,643	826.6	5.5	1.02	77	6.95	wnw.	8.7	1,610	990	
						1,500	840.1	7.0		73	7.31	wnw.	9.2	1,470	720	
						1,250	866.0	9.5		65	7.72	wnw.	10.0	1,225	260	
						1,000	893.0	12.0		57	8.00	nw.	10.9	980	0	
3:15	959.8	19.2	45	nw.	6.7	749	920.8	14.6	1.90	50	8.31	nw.	11.7	734	0	2/10A.St., wsw.; 3/10A.Cu., wsw.;
						500	948.0	17.1		48	9.36	nw.	9.8	490	0	3/10 Cu., wnw.
3:20	959.9	18.8	47	nw.	8.5	396	959.9	18.8		47	10.20	nw.	8.5	388		

TABLE 7.—*Free-air data from kite flights at Drexel Aerological Station, September, 1916*—Continued.

September 28, 1916.

Surface.						At different heights above sea.										Remarks.
Time.	Pressure.	Temperature.	Relative humidity.	Wind.		Altitude.	Pressure.	Temperature.	$\frac{\Delta t}{100\ m.}$	Humidity.		Wind.		Potential.		
				Dir.	Vel.					Rel.	Vap. pres.	Dir.	Vel.	Gravity.	Electric.	
A. M.	*mb.*	°*C.*	%		*m. p. s.*	*m.*	*mb.*	°*C.*		%	*mb.*		*m. p. s.*	10^5 *ergs.*	*volts.*	
7:26	975.6	5.9	66	nnw.	8.9	396	975.6	5.9	.....	66	6.13	nnw.	8.9	388	.....	7/10 St.Cu., nw.
						500	963.3	4.8	.....	68	5.85	nnw.	13.0	490	0	
7:33	975.8	6.0	65	nnw.	6.3	732	936.2	2.2	1.10	74	5.30	nnw.	22.0	718	0	
						750	934.0	2.0	.....	75	5.30	nnw.	21.7	735	80	
						1,000	905.6	−0.1	.....	80	4.85	nnw.	18.4	980	1,210	
7:43	976.0	6.5	64	nnw.	6.3	1,087	896.0	−0.9	0.93	82	4.65	nnw.	17.0	1,066	1,595	9/10 St.Cu., nnw.
						1,250	877.7	−2.5	.....	88	4.36	nnw.	22.6	1,225	2,110	
7:55	976.3	6.7	63	nnw.	7.2	1,407	861.0	−4.0	0.97	93	4.06	nnw.	28.0	1,379	2,600	St.Cu. base about 1,700 m.
						1,500	850.6	−4.5	.....	86	3.60	nnw.	24.7	1,470	3,030	
8:03	976.4	7.0	62	nnw.	7.2	1,701	829.5	−5.7	0.58	71	2.68	nnw.	17.5	1,667	3,970	
						1,750	824.2	−5.3	.....	67	2.62	nnw.	17.0	1,715	4,200	
8:04	976.4	7.0	62	nnw.	7.2	1,848	813.9	−4.7	−0.68	58	2.39	nnw.	16.0	1,811	4,660	
						2,000	798.5	−5.7	.....	61	2.31	nnw.	18.0	1,960	5,370	
						2,250	773.5	−7.3	.....	67	2.20	nnw.	21.7	2,205	6,480	
8:25	976.6	7.9	59	nnw.	6.3	2,369	762.0	−8.0	0.63	69	2.14	nnw.	22.8	2,321	7,000	6/10 St.Cu., nnw.
						2,500	749.0	−8.5	.....	58	1.72	nnw.	22.1	2,450	7,000	
						2,750	725.6	−9.5	.....	41	1.11	nnw.	20.8	2,694	7,280	
9:09	977.1	7.6	57	nnw.	10.3	2,995	703.0	−10.4	0.26	24	0.60	nnw.	20.0	2,934	8,600	
						2,750	725.8	−10.1	.....	30	0.77	nnw.	21.1	2,694	7,760	
9:28	977.3	8.2	58	nnw.	7.6	2,697	730.8	−10.0	0.17	31	0.81	nnw.	21.3	2,643	7,570	
9:30	977.4	8.3	58	nnw.	8.9	2,621	738.2	−8.7	0.24	31	0.90	nnw.	21.3	2,568	7,310	
						2,500	750.1	−8.4	.....	36	1.08	nnw.	20.3	2,450	6,880	
						2,250	775.0	−7.8	.....	46	1.45	nnw.	18.2	2,205	5,880	
9:57	977.7	8.8	53	nnw.	8.9	2,028	796.9	−7.3	0.60	55	1.81	nnw.	16.3	1,987	5,000	4/10 St. Cu., nnw.
						2,000	799.5	−7.1	.....	56	1.88	nnw.	16.3	1,960	4,900	
						1,750	825.0	−5.6	.....	64	2.44	nnw.	16.0	1,715	3,970	
						1,500	851.7	−4.2	.....	72	3.10	nnw.	15.6	1,470	3,050	
10:09	977.7	8.8	52	nnw.	9.8	1,407	862.5	−3.6	0.90	75	3.39	nnw.	15.5	1,379	2,700	St.Cu. base about 1,450 m.
						1,250	879.4	−1.6	.....	75	4.01	nnw.	15.2	1,225	2,260	
10:23	977.7	8.8	47	nnw.	10.3	1,061	900.8	−0.5	1.15	76	4.45	nnw.	14.8	1,040	1,735	
						1,000	907.5	0.2	.....	73	4.53	nnw.	15.1	980	1,420	
						750	936.3	3.1	.....	61	4.65	nnw.	16.3	735	140	
10:32	977.7	8.8	44	nnw.	8.9	723	939.4	3.4	1.74	60	4.68	nnw.	16.5	709	0	
						500	965.4	7.2	.....	50	5.08	nnw.	9.8	490	0	
10:42	977.7	9.1	46	nnw.	6.7	396	977.7	9.1	.....	46	5.32	nnw.	6.7	388	.....	4/10 St.Cu., nnw.

September 29, 1916.

A. M.																
7:44	979.7	2.8	67	ssw.	3.6	396	979.7	2.8	.....	67	5.00	ssw.	3.6	388	.....	3/10 Ci.St., wnw.
						500	967.4	3.7	.....	59	4.70	ssw.	6.0	490	.....	
7:49	979.7	3.4	67	ssw.	3.1	620	953.1	4.7	−0.84	50	4.27	ssw.	8.8	608	.....	
						750	938.0	4.3	.....	48	3.99	ssw.	8.5	735	.....	
7:52	979.7	3.6	66	ssw.	3.1	773	935.3	4.2	0.33	48	3.96	ssw.	8.5	758	2,300	
						1,000	909.8	3.3	.....	48	3.72	ssw.	7.7	980	3,860	2/10 Ci.St., wnw.
						1,250	882.7	2.2	.....	51	3.65	sw.	6.9	1,225	3,840	
9:00	979.7	6.7	55	sw.	5.4	1,310	876.1	2.1	0.39	51	3.63	sw.	6.7	1,284	4,000	
						1,500	855.7	1.0	.....	53	3.48	sw.	6.9	1,470	4,910	
						1,750	829.4	−0.4	.....	56	3.31	wsw.	7.2	1,715	6,120	
						2,000	803.9	−1.8	.....	58	3.05	wsw.	7.6	1,960	7,320	
						2,250	779.0	−3.2	.....	61	2.85	w.	7.9	2,205	8,130	22°-halo 9:55 to 11:17.
10:00	978.7	10.9	38	ssw.	7.2	2,277	776.6	−3.4	0.57	61	2.81	w.	7.9	2,231	8,160	7/10 Ci. St., wnw.
						2,500	754.8	−3.8	.....	49	2.18	w.	7.9	2,450	8,430	5/10 Ci., wnw.
						2,750	731.1	−4.2	.....	34	1.46	wnw.	8.0	2,694	8,730	5/10 Ci.St., wnw.
						3,000	708.2	−4.7	.....	20	0.82	wnw.	8.0	2,939	9,030	3/10 Ci., wsw.
10:54	977.5	12.8	34	ssw.	5.4	3,062	702.9	−4.8	0.18	16	0.65	wnw.	8.0	3,000	9,800	7/10 Ci.St., wsw.
						3,250	686.0	−5.0	.....	20	0.80	wnw.	8.8	3,184	10,710	
						3,500	664.4	−5.3	.....	26	1.02	wnw.	10.0	3,429	11,920	
						3,750	643.7	−5.6	.....	31	1.18	wnw.	10.7	3,673	13,100	
11:30	976.7	13.5	34	ssw.	7.2	3,856	635.4	−5.7	0.11	34	1.29	wnw.	11.2	3,777	13,510	9/10 A.St., wnw.
						4,000	623.4	−6.8	.....	40	1.38	wnw.	12.0	3,918	14,080	A.St.base about 4 900 m.
						4,250	603.5	−8.7	.....	51	1.48	wnw.	13.0	4,162	15,050	
						4,500	548.6	−10.8	.....	62	1.50	wnw.	14.2	4,407	16,030	
						4,750	566.0	−12.5	.....	73	1.51	wnw.	15.4	4,651	17,000	
P. M.																
12:03	975.9	13.8	34	ssw.	7.2	4,975	549.6	−14.2	0.52	83	1.48	wnw.	16.4	4,871	.....	A.St.base about 4,900 m.
						4,750	566.3	−13.5	.....	84	1.58	wnw.	15.6	4,651	17,000	
12:30	975.4	14.5	30	ssw.	9.8	4,610	577.2	−13.1	0.88	84	1.65	wnw.	15.1	4,514	16,060	
						4,500	585.1	−12.1	.....	78	1.68	wnw.	15.0	4,407	15,310	
						4,250	604.1	−9.9	.....	63	1.65	wnw.	14.6	4,162	13,980	
						4,000	623.4	−8.7	.....	49	1.43	wnw.	14.3	3,918	12,730	
12:55	974.8	14.4	30	ssw.	6.3	3,756	643.6	−5.6	0.46	35	1.33	wnw.	14.0	3,679	11,500	
						3,500	663.9	−4.4	.....	36	1.52	wnw.	14.0	3,429	9,680	
						3,250	685.0	−3.3	.....	37	1.72	w.	14.0	3,184	8,310	
						3,000	707.0	−2.1	.....	38	1.95	w.	13.0	2,939	7,390	
						2,750	730.0	−1.0	.....	38	2.14	w.	13.0	2,694	6,870	
						2,500	753.5	0.2	.....	39	2.42	wsw.	13.0	2,450	6,150	
1:13	974.4	14.2	31	s.	7.6	2,274	775.1	1.2	0.60	40	2.66	wsw.	13.0	2,229	5,500	
						2,250	777.5	1.3	.....	40	2.68	wsw.	13.0	2,205	5,450	
						2,000	801.9	2.8	.....	39	2.91	sw.	12.9	1,960	4,940	
						1,750	826.6	4.4	.....	39	3.26	sw.	12.8	1,715	4,430	
						1,500	852.5	5.9	.....	38	3.53	ssw.	12.6	1,470	3,640	
						1,250	879.3	7.4	.....	38	3.91	ssw.	12.5	1,225	2,620	
						1,000	906.2	8.9	.....	37	4.22	s.	12.4	980	.....	
1:45	973.7	15.2	30	s.	8.9	778	930.5	10.2	1.15	37	4.61	s.	12.3	763	.....	
						750	933.4	10.5	.....	37	4.70	s.	12.2	735	.....	
						500	961.6	13.4	.....	31	4.76	s.	10.5	490	.....	
1:51	973.5	14.6	29	s.	9.8	396	973.5	14.6	.....	29	4.82	s.	9.8	388	.....	2/10 Cl., wsw.; 2/10 Ci. St., wsw.: 2/10 A. St., w.; 3/10 A. Cu., w.

TABLE 7.—*Free-air data from kite flights at Drexel Aerological Station, September, 1916*—Continued.

September 30, 1916.

Surface.						At different heights above sea.										Remarks.
Time.	Pressure.	Temperature.	Relative humidity.	Wind.		Altitude.	Pressure.	Temperature.	$\frac{\Delta t}{100\ m.}$	Humidity.		Wind.		Potential.		
				Dir.	Vel.					Rel.	Vap. pres.	Dir.	Vel.	Gravity.	Electric.	
A. M.	*mb.*	°*C.*	%		*m. p. s.*	*m.*	*mb.*	°*C.*		%	*mb.*		*m. p. s.*	*10^5 ergs.*	*volts.*	
7:32	967.4	8.8	42	s.	5.4	396	967.4	8.8	.....	42	4.76	s.	5.4	388	.....	3/10 A.Cu., nw.
						500	955.2	8.7	.....	41	4.61	s.	10.3	490	0	
						750	927.0	8.5	.....	38	4.22	ssw.	22.1	735	0	
7:43	967.3	9.1	41	s.	5.4	790	922.3	8.5	0.08	37	4.11	ssw.	24.0	775	0	
						1,000	899.0	12.0	.....	36	5.05	sw.	10.7	980	880	
7:51	967.3	9.4	41	s.	5.4	1,192	879.0	15.2	−1.67	35	6.04	sw.	15.8	1,160	1,685	
7:54	967.2	9.6	40	s.	6.3	1,206	877.4	14.3	6.43	32	5.22	wsw.	10.2	1,182	1,710	
						1,250	873.0	15.3	.....	31	5.39	wsw.	10.2	1,225	1,780	
7:56	967.2	9.6	39	s.	6.3	1,442	853.6	19.1	−2.03	26	5.75	wsw.	10.2	1,414	2,110	
						1,500	847.0	18.5	.....	26	5.54	wsw.	10.3	1,470	2,210	
						1,750	822.5	16.2	.....	24	4.42	wsw.	11.0	1,715	2,840	
						2,000	798.8	13.8	.....	22	3.47	wsw.	11.6	1,960	3,490	Few A.Cu., nw.
8:21	967.2	11.8	38	s.	8.0	2,153	784.9	11.8	1.03	21	2.91	wsw.	11.9	2,110	3,862	
						2,250	775.8	10.7	.....	22	2.83	wsw.	11.8	2,205	4,030	Cloudless.
						2,500	753.0	8.0	.....	25	2.68	wsw.	11.7	2,450	4,480	
9:04	967.2	13.7	36	s.	10.3	2,699	735.3	5.8	1.10	28	2.58	wsw.	11.5	2,645	5,100	
						2,500	753.0	8.0	.....	26	2.79	wsw.	10.8	2,450	4,490	Cloudless.
9:52	966.6	16.6	30	s.	11.2	2,351	766.7	9.7	.....	25	3.01	wsw.	10.3	2,304	3,800	
						2,500	753.0	8.1	.....	26	2.81	wsw.	9.8	2,450	4,380	
10:20	966.4	17.6	28	ssw.	10.7	2,596	744.1	7.0	1.10	26	2.61	wsw.	9.5	2,544	4,750	
						2,750	730.6	5.5	.....	28	2.53	wsw.	10.1	2,694	5,180	
						3,000	708.5	3.1	.....	31	2.37	w.	11.1	2,929	5,890	
						3,250	686.6	0.7	.....	35	2.25	w.	12.0	3,184	6,600	
						3,500	665.5	−1.8	.....	38	2.00	w.	13.0	3,429	7,310	
						3,750	644.7	−4.1	.....	41	1.73	w.	13.9	3,673	8,010	
						4,000	624.5	−6.6	.....	44	1.54	wnw.	14.9	3,918	8,720	
10:38	966.3	18.6	28	ssw.	10.7	4,205	608.6	−8.6	0.96	47	1.38	wnw.	15.7	4,118	9,300	
						4,000	624.5	−6.6	.....	50	1.75	wnw.	15.3	3,918	8,310	
						3,750	644.7	−4.3	.....	54	2.30	wnw.	14.7	3,673	7,170	
11:02	966.2	19.8	27	ssw.	11.2	3,690	650.1	−3.7	1.06	55	2.46	wnw.	14.6	3,614	6,940	
						3,500	665.5	−1.7	.....	51	2.70	wnw.	15.1	3,429	6,210	
						3,250	686.6	+0.9	.....	45	2.93	w.	15.8	3,184	5,250	Cloudless.
11:17	966.0	20.5	26	ssw.	11.2	3,160	694.2	1.9	0.92	43	3.01	w.	16.0	3,096	4,900	
						3,000	708.5	3.4	.....	41	3.20	w.	15.3	2,939	4,450	
						2,750	730.6	5.7	.....	38	3.48	wsw.	14.2	2,694	3,740	
						2,500	753.0	8.0	.....	35	3.76	wsw.	13.1	2,450	3,140	
						2,250	775.9	10.3	.....	32	4.01	sw.	12.1	2,205	2,590	
11:45	965.7	20.6	24	ssw.	9.8	2,118	788.1	11.5	0.76	30	4.07	sw.	11.5	2,174	2,300	
						2,000	799.2	12.4	.....	29	4.18	sw.	11.9	1,960	2,140	
						1,750	823.0	14.3	.....	28	4.56	sw.	12.9	1,715	1,790	
						1,500	847.0	16.2	.....	26	4.79	ssw.	13.8	1,470	1,440	
						1,250	873.0	18.1	.....	24	4.98	ssw.	14.7	1,225	1,120	
P. M.																
12:01	965.5	21.6	25	ssw.	12.1	1,178	880.6	18.6	−5.23	24	5.14	ssw.	15.0	1,155	1,030	
12:07	965.4	21.6	20	ssw.	11.6	1,071	891.8	13.0	1.10	28	4.19	ssw.	15.4	1,050	890	
						1,000	899.0	13.8	.....	28	4.42	ssw.	14.9	980	680	
12:16	965.2	22.0	23	ssw.	11.6	771	923.9	16.3	1.63	28	5.19	ssw.	13.4	756	0	Cloudless.
						750	925.7	16.6	.....	28	5.30	ssw.	13.2	735	0	
						500	953.2	20.7	.....	24	5.86	ssw.	11.4	490	0	
12:27	965.0	22.4	22	ssw.	10.7	396	965.0	22.4	.....	22	5.96	ssw.	10.7	388	.....	

TABLE 8.—*Free-air data from kite flights at Drexel Aerological Station, October, 1916.*

October 1, 1916 (No. 1).

Surface.						At different heights above sea.										Remarks.
Time.	Pressure.	Temperature.	Relative humidity.	Wind.		Altitude.	Pressure.	Temperature.	$\frac{\Delta t}{100\ m.}$	Humidity.		Wind.		Potential.		
				Dir.	Vel.					Rel.	Vap. pres.	Dir.	Vel.	Gravity.	Electric.	
A. M.	*mb.*	°*C.*	%		*m. p. s.*	*m.*	*mb.*	°*C.*		%	*mb.*		*m. p. s.*	*10⁵ ergs.*	*volts.*	
7:31	964.5	13.8	40	s.	8.9	396	964.5	13.8	.....	40	6.31	s.	8.9	388	.....	
						500	952.5	13.2	.....	40	6.07	s.	13.6	490	0	
						750	924.5	11.8	.....	40	5.54	s.	24.9	735	0	
7:33	964.5	14.0	42	s.	8.9	776	921.7	11.7	0.55	40	5.50	s.	26.1	761	0	5/10 Cl.Cu.,w.; 3/10 A.St., w.
						1,000	897.6	15.9	.....	39	7.05	ssw.	31.7	980	580	
7:46	964.5	13.8	40	s.	7.6	1,031	888.0	17.6	−1.83	38	7.65	ssw.	34.0	1,070	810	
						1,000	897.6	16.0	.....	39	7.09	ssw.	30.6	980	.....	
8:04	964.5	14.6	39	s.	9.4	761	923.3	11.7	0.90	40	5.50	s.	21.6	746	.....	
						750	924.5	11.8	.....	40	5.54	s.	21.3	735	.....	
						500	952.5	14.1	.....	39	6.28	s.	13.5	490	.....	
8:12	964.5	15.0	38	s.	10.3	396	964.5	15.0	.....	38	6.48	s.	10.3	388	.....	3/10 Cl.Cu., w.; 5/10 A.St., w.

October 1, 1916 (No. 2).

P. M.																
4:17	961.1	21.6	33	s.	11.2	396	961.1	21.6	.....	33	8.51	s.	11.2	388	.....	9/10 A.St., wsw. raining.
						500	949.8	20.5	.....	33	7.76	s.	13.3	490	0	
						750	922.4	17.7	.....	33	6.68	sse.	18.4	735	0	
4:22	961.1	21.2	36	sse.	8.0	778	919.2	17.4	1.10	33	6.56	sse.	19.0	763	0	
						1,000	895.4	15.6	.....	35	6.20	sse.	25.9	980	0	
						1,250	869.3	13.7	.....	38	5.96	sse.	33.5	1,225	0	
4:39	961.1	21.0	33	sse.	8.9	1,296	864.7	13.3	0.78	38	5.80	sse.	35.0	1,270	0	
						1,250	869.3	13.6	.....	38	5.92	sse.	34.5	1,225	0	Rain ended 4:42 p. m.
						1,000	895.4	15.5	.....	37	6.52	sse.	32.0	980	0	
4:50	961.1	21.1	35	sse.	9.4	822	914.4	16.9	1.01	36	6.93	sse.	30.2	806	0	
						750	922.4	17.6	.....	35	7.05	sse.	27.4	735	0	
						500	949.8	20.2	.....	34	8.05	s.	17.9	490	0	
5:03	961.2	21.2	33	s.	13.9	396	961.2	21.2	.....	33	8.31	s.	13.9	388	.....	9/10 A.St., wsw.

October 2, 1916 (No. 1).

A. M.																
7:03	962.5	12.7	57	sse.	11.2	396	962.5	12.7	.....	57	8.37	sse.	11.2	388	.....	2/10 St.Cu., ssw.
						500	950.5	13.6	.....	51	7.95	sse.	15.2	500	0	
7:05	962.5	12.8	57	sse.	11.2	539	946.3	14.0	−0.91	49	7.83	sse.	16.7	528	0	
						750	922.4	13.4	.....	47	7.22	s.	20.8	735	270	
7:20	962.5	13.1	56	s.	11.2	951	901.1	12.9	0.30	45	6.70	s.	24.7	932	.....	
						750	922.4	13.5	.....	45	6.96	s.	20.6	735	.....	
7:33	962.5	13.4	56	s.	8.9	568	943.1	14.2	−0.35	46	7.45	s.	16.1	557	.....	
						500	950.5	14.0	.....	49	7.83	s.	13.1	490	.....	
7:36	962.5	13.6	54	s.	8.5	396	962.5	13.6	.....	54	8.41	s.	8.5	388	.....	2/10 St.Cu., ssw.

October 2, 1916 (No. 2).

A. M.																
8:11	962.6	15.2	49	s.	5.8	396	962.6	15.2	.....	49	8.46	s.	5.8	388	.....	2/10 St.Cu., ssw.
						500	950.4	14.4	.....	48	7.87	s.	10.1	490	.....	
8:20	962.6	16.0	48	s.	5.4	725	925.8	12.8	0.73	46	6.80	ssw.	19.3	711	565	
						750	922.8	12.8	.....	47	6.95	ssw.	19.1	735	710	
						1,000	896.0	13.3	.....	53	8.09	ssw.	17.5	980	2,200	
						1,250	870.2	13.8	.....	60	8.47	sw.	15.9	1,225	3,360	
8:55	962.8	18.0	43	s.	8.0	1,445	850.4	14.2	−0.19	65	10.52	sw.	14.7	1,416	4,100	
						1,500	845.0	14.3	.....	63	10.27	sw.	14.7	1,470	4,210	
						1,750	820.0	14.5	.....	56	9.25	sw.	14.4	1,715	4,740	
						2,000	796.0	14.7	.....	49	8.20	sw.	14.2	1,960	5,760	
						2,250	773.2	15.0	.....	42	7.16	sw.	14.0	2,205	5,780	
9:12	962.9	18.6	41	s.	8.5	2,274	771.0	15.0	−0.10	41	6.99	sw.	14.0	2,209	5,840	1/10 St. Cu., ssw.
						2,500	750.3	12.9	.....	42	6.25	sw.	15.8	2,450	6,300	
						2,750	728.3	10.7	.....	43	5.53	sw.	17.9	2,694	6,680	
						3,000	707.0	8.4	.....	44	4.85	sw.	19.9	2,939	7,120	
9:58	963.1	20.2	38	s.	10.3	3,112	697.8	7.4	0.91	44	4.53	sw.	20.8	3,049	7,440	3/10 St. Cu., ssw.
						3,250	686.3	6.0	.....	46	4.30	sw.	20.2	3,184	7,824	
						3,500	665.6	3.5	.....	51	4.00	sw.	19.1	3,429	8,530	
10:13	963.1	20.3	39	s.	10.3	3,666	652.0	1.8	1.32	54	3.76	sw.	18.4	3,591	9,000	3/10 St. Cu., ssw.
						3,500	665.6	3.6	.....	51	4.03	sw.	18.2	3,429	8,190	
						3,250	686.6	6.4	.....	47	4.52	sw.	17.9	3,184	6,960	
						3,000	707.6	9.0	.....	43	4.93	sw.	17.5	2,939	5,770	
10:55	963.1	21.6	38	s.	11.6	2,881	716.9	10.3	0.31	41	5.14	sw.	17.4	2,833	5,510	
						2,750	729.1	11.4	.....	39	5.26	sw.	18.2	2,694	5,170	
						2,500	751.3	13.5	.....	36	5.57	sw.	19.7	2,450	4,570	
						2,250	774.1	15.5	.....	32	5.64	ssw.	21.1	2,205	4,070	
11:23	963.0	22.4	37	s.	11.6	2,063	790.9	17.0	−1.14	30	5.81	ssw.	22.2	2,022	3,610	3/10 St. Cu., ssw.
						2,000	796.7	16.3	.....	33	6.11	ssw.	21.3	1,960	3,070	
						1,750	820.6	13.4	.....	45	6.92	ssw.	17.7	1,715	2,740	
						1,500	845.2	10.6	.....	58	7.41	ssw.	14.0	1,470	2,020	
11:38	962.9	23.2	36	s.	9.4	1,451	850.4	10.0	1.13	60	7.37	ssw.	13.3	1,422	1,890	
						1,250	870.6	12.3	.....	56	8.01	ssw.	13.6	1,225	1,315	
						1,000	896.8	15.1	.....	51	8.75	s.	14.0	980	590	
P. M.																
12:08	962.5	23.2	37	s.	6.7	776	921.0	17.6	1.68	47	9.46	s.	14.4	761	0	
						750	923.7	18.0	.....	46	9.49	s.	14.3	735	0	
						500	950.8	22.2	.....	40	10.71	s.	10.1	490	0	
12:15	962.3	24.0	37	s.	8.5	396	962.3	24.0	.....	37	11.04	s.	8.5	388	.....	2/10 St. Cu., ssw.

TABLE 8.—*Free-air data from kite flights at Drexel Aerological Station, October, 1916*—Continued.

October 3, 1916.

Surface.						At different heights above sea.										Remarks.
Time.	Pressure.	Temperature.	Relative humidity.	Wind.		Altitude.	Pressure.	Temperature.	$\frac{\Delta t}{100\ m.}$	Humidity.		Wind.		Potential.		
				Dir.	Vel.					Rel.	Vap. pres.	Dir.	Vel.	Gravity.	Electric.	
A. M.	*mb.*	*° C.*	*%*		*m. p. s.*	*m.*	*mb.*	*° C.*		*%*	*mb.*		*m. p. s.*	*10^5 ergs.*	*volts.*	
7:55	960.1	17.9	60	sse.	7.2	396	960.1	17.9	.....	60	12.31	sse.	7.2	388	.....	
						500	948.6	17.0	.....	63	12.21	s.	13.0	490	0	
8:00	960.1	18.1	60	sse.	6.7	681	928.6	15.5	0.84	67	11.80	ssw.	23.0	668	0	
						750	921.2	16.0	.....	68	12.36	ssw.	22.8	735	70	
8:10	960.0	18.7	60	s.	6.7	980	896.4	17.8	−0.77	73	14.88	sw.	22.0	961	1,830	2/10 Ci., wnw.
						1,000	894.3	18.2	.....	70	14.63	sw.	21.6	980	1,840	
						1,250	869.0	23.8	.....	37	10.91	sw.	15.9	1,225	1,950	
8:21	960.0	19.2	58	s.	8.5	1,360	858.1	26.3	−2.24	23	7.87	sw.	14.0	1,333	2,000	
						1,500	844.8	25.0	.....	21	6.65	sw.	14.7	1,470	2,230	
						1,750	820.5	22.7	.....	18	4.97	sw.	15.9	1,715	2,630	
8:39	959.9	20.7	56	s.	10.3	1,854	810.9	21.7	0.93	17	4.41	sw.	16.4	1,817	2,800	
						2,000	797.0	20.2	.....	18	4.26	sw.	16.6	1,960	3,000	
						2,250	774.0	17.6	.....	19	3.82	sw.	16.8	2,205	3,330	
						2,500	751.4	15.0	.....	20	3.41	sw.	17.1	2,450	3,780	
						2,750	729.7	12.4	.....	21	3.02	sw.	17.4	2,694	4,350	Cloudless.
9:19	959.7	22.0	54	s.	9.8	2,802	720.0	11.2	1.04	21	2.79	sw.	17.5	2,804	4,600	
						3,000	708.3	9.6	.....	22	2.63	sw.	18.2	2,939	5,030	
						3,250	687.3	6.8	.....	24	2.37	sw.	19.5	3,184	5,810	
						3,500	666.7	4.0	.....	26	2.11	sw.	20.8	3,429	6,580	
9:52	959.5	23.9	49	s.	10.7	3,538	663.6	3.6	1.05	26	2.06	sw.	21.0	3,466	6,700	
						3,500	666.7	4.0	.....	26	2.11	sw.	20.8	3,429	6,590	
						3,250	687.3	6.4	.....	25	2.40	sw.	19.5	3,184	5,860	
						3,000	708.3	8.9	.....	24	2.74	sw.	18.2	2,939	5,130	
						2,750	729.7	11.4	.....	22	2.97	sw.	16.9	2,694	4,410	
10:36	959.2	25.6	47	s.	13.9	2,643	739.2	12.4	0.96	22	3.17	sw.	16.4	2,590	4,100	
						2,500	751.4	13.8	.....	21	3.31	sw.	17.0	2,450	3,680	
						2,250	774.3	16.2	.....	20	3.68	sw.	18.1	2,205	2,950	Cloudless.
						2,000	797.8	18.6	.....	18	3.86	sw.	19.2	1,960	2,220	
11:07	959.1	27.0	45	s.	13.4	1,957	801.5	19.0	0.40	18	3.95	sw.	19.4	1,918	2,100	
						1,750	821.0	21.2	.....	19	4.78	sw.	20.1	1,715	1,750	
						1,500	845.0	23.8	.....	20	5.90	sw.	20.9	1,470	1,320	
11:29	958.9	27.7	41	s.	13.4	1,380	856.4	25.0	−1.87	20	6.34	sw.	21.3	1,353	1,100	
						1,250	869.8	22.6	.....	31	8.50	sw.	17.6	1,225	870	Cloudless.
11:37	958.9	27.8	41	s.	11.2	1,096	885.2	19.7	0.83	44	10.10	sw.	13.3	1,074	590	
						1,000	895.2	21.4	.....	49	12.49	sw.	13.0	980	420	
11:46	958.8	28.4	39	s.	9.8	755	920.5	22.7	1.02	32	14.35	ssw.	12.8	740	0	
						500	947.6	26.8	.....	42	14.80	s.	11.0	490	0	
11:52	958.8	28.5	38	s.	10.3	396	958.8	28.5	.....	38	14.79	s.	10.3	388	.....	Cloudless.

October 4, 1916.

P. M.																
4:15	964.2	23.5	48	nne.	4.0	396	964.2	23.5	.....	48	13.90	nne.	4.0	388	.....	Few Ci., sw.
						500	952.6	22.5	.....	50	13.63	nne.	5.1	490	0	
4:22	964.2	23.6	48	nne.	3.6	647	936.8	21.0	1.00	53	13.18	nne.	6.6	634	0	
						750	925.8	17.6	.....	62	12.48	e.	4.9	735	0	
6:25	965.3	17.5	65	n.	4.0	771	923.9	16.9	3.31	64	12.32	e.	4.5	756	0	
						1,000	899.6	18.4	.....	59	12.48	e.	7.4	980	450	
						1,250	874.3	20.0	.....	53	12.39	sse.	10.6	1,225	830	
6:49	966.1	16.1	67	n.	4.5	1,410	858.3	21.0	−0.64	49	12.19	sse.	12.6	1,382	1,0.0	Few Ci., sw.; 1/10 A.St., sw.
						1,500	849.5	20.2	.....	50	11.84	sse.	12.9	1,470	1,200	
						1,750	824.8	18.1	.....	52	10.80	sse.	13.9	1,715	1,720	
						2,000	801.3	16.0	.....	54	9.82	s.	14.8	1,910	2,380	
						2,250	778.8	13.9	.....	55	9.94	s.	15.8	2,205	3,030	Distant lightning in nnw. at 7 p.
7:10	966.7	14.7	70	n.	4.9	2,315	772.8	13.4	0.82	56	8.61	s.	16.0	2,268	3,200	Few A.St.
						2,250	778.8	13.9	.....	56	8.89	s.	16.1	2,205	3,080	
						2,000	802.1	15.9	.....	55	9.94	s.	16.6	1,960	2,630	
						1,750	826.5	17.9	.....	54	11.08	sse.	17.1	1,715	2,180	
						1,500	851.3	19.9	.....	54	12.55	sse.	17.5	1,470	1,660	
7:33	967.1	14.4	70	nne.	3.6	1,253	875.8	21.9	−0.07	53	13.93	sse.	18.0	1,228	950	Cloudless; occasional lightning in n.
7:41	967.3	13.7	73	n.	4.0	1,106	890.2	21.8	−2.29	54	14.10	e.	11.2	1,084	530	
						1,000	901.2	19.4	.....	60	13.52	ne.	11.0	980	220	
						750	927.7	13.6	.....	74	11.53	nne.	10.5	735	0	
7:55	967.5	13.0	75	n.	3.6	622	941.7	10.7	1.02	81	10.42	n.	10.3	610	0	Cloudless; distant lightning in n.
						500	955.4	11.9	.....	78	10.87	n.	6.7	490	0	
7:57	967.5	13.0	75	n.	3.6	396	967.5	13.0	.....	75	11.24	n.	3.6	388	.....	

October 5, 1916.

A. M.																
8:03	978.4	9.4	65	n.	6.3	396	978.4	9.4	.....	65	7.66	n.	6.3	388	.....	7/10 A.St., sw.; 3/10 A.Cu., sw.
						500	965.8	8.1	.....	69	7.45	n.	7.1	490	290	
8:12	978.5	9.6	65	nne.	4.9	736	938.9	5.1	1.26	77	6.77	nne.	9.2	722	950	
						750	937.0	5.0	.....	77	6.71	nne.	9.4	735	1,020	
8:17	978.6	9.6	64	n.	4.9	879	922.8	4.4	0.49	78	6.53	ne.	10.9	862	1,630	
						1,000	909.4	7.5	.....	73	7.57	ne.	8.8	980	2,310	
8:38	978.8	9.4	64	nne.	4.9	1,172	890.8	11.9	−2.56	65	9.05	ne.	5.8	1,149	2,800	2/10 A.St., sw.; 7/10 A.Cu., sw.
						1,250	883.2	11.9	.....	68	9.47	ne.	4.9	1,225	3,140	2/10 A.St., sw.; 3/10 A.Cu., sw.
						1,500	858.4	12.0	.....	78	10.94	nne.	2.0	1,470	.....	
10:59	980.1	13.4	44	nne.	4.5	1,508	857.5	12.0	−0.05	78	10.94	nne.	1.9	1,478	.....	
						1,500	858.5	12.0	.....	78	10.94	nne.	2.0	1,470	.....	5/10 A.Cu., sw.
						1,250	884.6	11.8	.....	66	9.15	nne.	5.7	1,225	3,410	
11:21	980.1	14.0	38	nne.	4.9	1,235	886.0	11.8	−2.38	65	9.00	nne.	5.9	1,211	3,370	
11:33	980.1	14.5	38	nne.	4.9	1,042	906.8	7.2	0.67	53	5.38	nne.	8.4	1,022	2,380	
						1,000	911.3	7.5	.....	53	5.50	nne.	8.3	980	2,090	
						750	939.3	9.1	.....	50	5.78	nne.	8.0	735	370	
11:44	980.1	14.4	38	nne.	5.4	697	945.4	9.5	1.82	50	5.94	nne.	7.9	683	0	
						500	968.0	13.1	.....	42	6.33	nne.	5.9	490	0	
11:51	980.1	15.0	38	nne.	4.9	396	980.1	15.0	.....	38	6.48	nne.	4.9	388	.....	3/10 A.Cu., sw.

TABLE 8.—*Free-air data from kite flights at Drexel Aerological Station, October, 1916*—Continued.

October 6, 1916.

Surface.						At different heights above sea.											Remarks.
Time.	Pressure.	Temperature.	Relative humidity.	Wind.		Altitude.	Pressure.	Temperature.	$\frac{\Delta t}{100\ m.}$	Humidity.		Wind.		Potential.			
				Dir.	Vel.					Rel.	Vap. pres.	Dir.	Vel.	Gravity.	Electric.		
P. M.	*mb.*	°*C.*	%		*m. p. s.*	*m.*	*mb.*	°*C.*		%	*mb.*		*m. p. s.*	*10^5 ergs.*	*volts.*		
12:26	976.4	20.8	32	sso.	7.6	396	976.4	20.8	.....	32	7.86	sse	7.6	388	.....	Few Cl., w.	
						500	954.3	19.1	.....	33	7.30	sse.	6.8	490	0		
12:53	975.9	21.2	32	sse.	7.6	667	945.4	16.3	1.66	35	6.49	sse.	5.5	654	0		
						750	935.6	15.8	.....	38	6.82	sse.	6.2	735	470		
						1,000	907.6	14.4	.....	46	7.54	s.	8.3	980	1,100		
2:38	974.0	23.2	35	ssw.	5.4	1,220	884.4	13.1	0.58	54	8.14	ssw.	10.1	1,196	1,770	4/10 Cl., w.	
						1,250	881.2	13.6	.....	54	8.41	ssw.	10.3	1,225	1,860		
2:43	973.9	23.4	35	ssw.	5.4	1,434	862.2	16.7	−1.68	56	10.65	sw.	11.6	1,406	2,420		
						1,500	855.6	16.6	.....	54	10.20	sw.	12.4	1,470	2,620		
						1,750	830.5	16.5	.....	49	9.20	sw.	15.3	1,715	3,400		
						2,000	806.2	16.3	.....	43	7.97	sw.	18.2	1,960	4,210		
3:02	973.6	23.4	36	ssw.	6.3	2,087	798.3	16.2	0.08	41	7.55	sw.	19.2	2,045	4,500		
						2,250	782.6	14.8	.....	42	7.07	sw.	18.0	2,205	4,900		
						2,500	759.8	12.7	.....	44	6.46	sw.	16.1	2,450	5,520		
						2,750	737.5	10.6	.....	46	5.88	sw.	14.2	2,694	6,080		
3:20	973.4	23.7	34	ssw.	5.8	2,983	717.4	8.6	0.85	48	5.36	sw.	12.5	2,923	6,500		
						3,000	716.0	8.4	.....	48	5.29	sw.	12.5	2,939	6,800		
						3,250	694.7	6.1	.....	49	4.62	sw.	13.0	3,184	6,960		
						3,500	674.1	3.8	.....	50	4.01	sw.	13.5	3,429	7,400		
3:45	973.2	25.0	33	s.	4.9	3,653	661.7	2.4	0.94	50	3.63	sw.	13.8	3,578	7,650	3/10 Cl., w.	
						3,500	674.1	3.9	.....	49	3.96	sw.	14.5	3,429	7,140		
						3,250	694.7	6.2	.....	46	4.36	sw.	15.6	3,184	6,180		
						3,000	716.0	8.6	.....	44	4.91	sw.	16.7	2,939	5,220		
4:02	973.0	24.0	35	ssw.	5.8	2,969	718.9	8.9	0.71	41	5.02	sw.	16.8	2,909	5,100		
						2,750	737.5	10.5	.....	44	5.59	sw.	16.7	2,694	4,660		
						2,500	759.8	12.2	.....	44	6.25	sw.	16.7	2,450	4,050		
						2,250	782.6	14.0	.....	43	6.87	sw.	16.6	2,205	3,640		
						2,000	806.2	15.8	.....	43	7.72	sw.	16.6	1,960	3,020		
						1,750	830.5	17.5	.....	43	8.60	sw	16.5	1,715	2,350		
4:30	972.6	24.6	34	ssw.	5.4	1,656	840.1	18.2	0.15	43	8.99	sw.	16.5	1,623	2,100	1/10 Cl., w.	
						1,500	855.3	18.4	.....	44	9.73	ssw.	12.2	1,470	1,760		
4:41	972.6	24.1	35	ssw.	5.8	1,449	860.6	18.5	−0.85	47	10.01	ssw.	10.8	1,420	1,650		
						1,250	880.4	16.8	.....	51	9.76	ssw.	13.1	1,225	1,220		
4:46	972.5	23.8	36	s.	4.9	1,167	889.2	16.1	1.02	52	9.52	ssw.	14.0	1,144	1,040		
						1,000	906.7	17.8	.....	49	9.99	ssw.	12.3	980	660		
						750	933.6	20.3	.....	46	10.96	s.	9.8	735	80		
5:00	972.3	23.2	39	s.	4.5	714	937.3	20.7	0.85	45	10.99	s.	9.4	700	0		
						500	960.8	22.5	.....	40	10.90	s.	5.8	490	0		
5:06	972.2	23.4	38	s.	4.0	396	972.2	23.4	.....	38	10.94	s.	4.0	388	.....	1/10 Cl., w.	

October 7, 1916.

A. M.																	
7:28	969.4	17.5	54	ssw.	6.7	396	969.4	17.5	.....	54	10.80	ssw.	6.7	388	.....		
						500	957.8	19.1	.....	50	11.06	ssw.	10.9	490	0		
7:40	969.5	18.0	52	ssw.	5.8	750	930.6	22.8	−1.50	39	10.83	sw.	21.0	735	0		
						1,000	904.0	21.2	.....	37	9.32	sw.	18.1	980	720		
						1,250	878.5	19.6	.....	35	7.98	sw.	15.2	1,225	1,590		
7:57	969.6	18.6	52	ssw.	6.7	1,497	853.6	18.0	0.64	33	6.81	sw.	12.4	1,467	2,500		
						1,750	828.5	15.9	.....	34	6.14	sw.	11.0	1,715	2,690		
						2,000	804.4	13.9	.....	36	5.72	sw.	9.6	1,960	3,460	3/10 Cl., wsw.	
8:20	969.5	19.9	47	ssw.	6.3	2,026	801.9	13.7	0.81	36	5.64	sw.	9.5	1,985	3,540		
						2,250	781.0	13.8	.....	30	4.73	sw.	11.3	2,205	4,180		
8:26	969.4	20.1	47	ssw.	8.5	2,455	762.0	13.8	−0.05	24	3.79	sw.	13.0	2,406	4,730		
						2,500	757.8	13.4	.....	23	3.54	sw.	13.4	2,450	4,890		
						2,750	735.5	11.2	.....	19	2.53	sw.	15.5	2,694	5,340		
8:45	969.3	20.9	46	ssw.	7.6	2,995	714.2	9.1	0.87	14	1.62	sw.	17.5	2,934	5,740		
						3,250	692.5	7.0	.....	13	1.30	sw.	18.0	3,184	6,200	3/10 Cl., wsw.	
						3,500	672.2	5.0	.....	12	1.05	sw.	18.5	3,429	7,050		
9:40	969.0	22.8	42	ssw.	7.2	3,514	670.7	4.9	0.80	12	1.04	sw.	18.5	3,442	7,100		
						3,500	672.2	5.0	.....	12	1.05	sw.	18.4	3,429	7,060		
						3,250	692.5	7.0	.....	12	1.20	sw.	17.4	3,184	6,270		
						3,000	713.5	9.0	.....	11	1.26	sw.	16.4	2,939	5,480		
10:17	968.8	25.4	36	sw.	8.5	2,787	731.9	10.7	0.73	11	1.42	sw.	15.5	2,731	4,800	4/10 Cl., wsw.	
						2,750	734.8	11.0	.....	11	1.44	sw.	15.4	2,694	4,710		
						2,500	757.2	12.8	.....	10	1.48	sw.	14.7	2,450	4,080		
						2,250	780.0	14.6	.....	9	1.50	sw.	14.0	2,205	3,670	5/10 Cl., wsw.	
10:42	968.7	26.5	34	sw.	8.0	2,086	795.6	15.8	−0.51	8	1.44	sw.	13.6	2,044	3,370		
						2,000	803.3	15.4	.....	10	1.75	sw.	13.4	1,960	3,150		
10:47	968.7	26.9	33	sw.	8.0	1,889	814.3	14.8	0.56	12	2.02	sw.	13.1	1,851	2,870		
						1,750	827.7	15.6	.....	17	3.01	sw.	13.0	1,715	2,230		
						1,500	852.5	17.0	.....	25	4.84	sw.	12.9	1,470	1,870		
						1,250	877.5	18.4	.....	34	7.19	sw.	12.7	1,225	1,210		
11:10	968.4	27.7	31	sw.	10.3	1,189	884.0	18.7	0.92	36	7.77	sw.	12.7	1,166	950		
						1,000	903.1	20.4	.....	37	8.87	sw.	11.0	980	520		
11:21	968.3	28.0	32	ssw.	11.2	774	927.4	22.5	1.40	39	10.63	sw.	8.9	759	0		
						750	929.5	22.8	.....	38	10.55	sw.	9.0	735	0		
						500	956.5	25.3	.....	33	11.29	ssw.	10.6	490	0		
11:28	968.2	27.8	31	ssw.	11.2	396	968.2	27.8	.....	31	11.58	ssw.	11.2	388	.....	5/10 Cl., wsw.	

TABLE 8.—*Free-air data from kite flights at Drexel Aerological Station, October, 1916*—Continued.

October 8, 1916.

Surface.						At different heights above sea.										
Time.	Pressure.	Temperature.	Relative humidity.	Wind.		Altitude.	Pressure.	Temperature.	Δt / 100 m.	Humidity.		Wind.		Potential.		Remarks.
				Dir.	Vel.					Rel.	Vap. pres.	Dir.	Vel.	Gravity.	Electric.	
A. M.	*mb.*	°*C.*	%		*m. p. s.*	*m.*	*mb.*	°*C.*		%	*mb.*		*m. p. s.*	*10^6 ergs.*	*volts.*	
7:11	967.7	8.8	78	nne.	3.6	396	967.7	8.8	.....	78	8.84	nne.	3.6	388	.....	Few Ci., sw.; 4/10 A.Cu., wsw.
						500	955.3	7.7	.....	83	8.72	nne.	5.0	490	0	
7:17	967.8	8.9	78	nne.	4.0	668	936.4	6.0	1.03	92	8.60	nne.	7.2	655	0	
						750	927.0	6.9	.....	88	8.76	n.	6.7	735	0	2/10 Ci., sw.; few Cu., wsw.
						1,000	900.4	9.7	.....	77	9.26	nnw.	5.0	980	1,620	
9:56	969.8	12.3	63	nne.	4.5	1,155	885.0	11.4	−1.11	70	9.44	nw.	4.0	1,132	.....	Few Cl.St., sw.
						1,250	875.0	11.7	.....	69	9.48	nw.	4.2	1,225	2,180	
						1,500	849.9	12.6	.....	65	9.48	wnw.	4.7	1,470	2,330	
10:25	969.9	13.1	60	nne.	6.7	1,635	835.9	13.0	−0.33	63	9.44	wnw.	5.0	1,602	.....	
12:01	969.9	15.7	52	n.	4.0	1,682	831.2	10.7	2.00	72	9.27	wnw.	1.0	1,649	.....	1/10 Cl.St., sw.
						1,500	849.9	9.1	.....	77	8.90	nw.	4.4	1,470	1,410	
						1,250	876.1	6.8	.....	84	8.30	n.	9.1	1,225	1,190	
12:38	969.7	10.3	51	nne.	4.9	1,158	885.0	6.0	1.09	86	8.04	nne.	10.8	1,135	1,105	
						1,000	902.3	7.7	.....	78	8.20	nne.	10.1	980	660	
12:48	969.7	10.8	50	nne.	4.9	763	928.3	10.3	1.72	67	8.40	nne.	9.0	748	0	1/10 Cl.St., sw.
						750	929.9	10.5	.....	66	8.38	nne.	8.6	735	0	
						500	957.8	14.8	.....	55	9.26	nne.	7.6	490	0	
12:52	969.6	10.6	50	nne.	7.6	396	969.6	16.6	.....	50	9.41	nne.	7.6	388	.....	2/10 Ci.Cu.,sw.; 1/10 A.Cu. wsw.

October 9, 1916.

A. M.																
7:43	983.8	6.0	72	nne.	5.4	396	983.8	6.0	.....	72	6.73	nne.	5.4	388	.....	10/10 A.St., wnw.
						500	871.2	5.0	.....	73	6.37	nne.	7.6	490	120	
						750	942.5	2.6	.....	74	5.45	ne.	13.0	735	400	
7:57	984.1	6.0	72	nne.	5.4	760	941.1	2.5	0.96	74	5.41	ne.	13.2	745	410	
						1,000	913.6	1.5	.....	66	4.49	ne.	16.0	980	680	
8:02	984.1	6.0	72	nne.	5.4	1,082	904.2	1.2	0.40	63	4.20	ne.	17.0	1,061	780	
						1,250	885.5	1.7	.....	44	3.04	ne.	15.2	1,225	970	
8:14	984.3	6.2	70	nne.	5.8	1,389	870.7	2.2	−0.33	28	2.00	ne.	13.8	1,362	1,240	10/10 A.St., wnw.
						1,500	858.5	1.7	.....	26	1.80	ne.	13.6	1,470	1,360	
						1,750	832.6	0.5	.....	21	1.33	ne.	13.1	1,715	1,640	
8:28	984.4	6.4	68	nne.	4.9	1,823	825.2	0.1	0.48	19	1.17	ne.	12.9	1,787	1,730	10/10 A.St., wnw.
10:22	985.6	7.5	56	ne.	5.8	1,984	809.8	1.0	−0.56	91	5.98	n.	5.4	1,945	3,700	
						2,000	807.5	1.0	.....	91	5.98	n.	5.6	1,960	3,710	
						2,250	783.5	0.3	.....	91	5.68	nnw.	8.0	2,205	3,810	
						2,500	759.1	− 0.3	.....	91	5.42	nnw.	10.5	2,450	3,920	
						2,750	735.8	− 0.9	.....	91	5.16	nw.	13.0	2,694	4,020	
10:39	985.7	7.7	53	ne.	6.3	2,830	728.8	− 1.1	0.25	91	5.07	nw.	13.8	2,773	4,060	
10:43	985.7	7.8	52	ne.	5.8	2,928	719.9	− 0.9	−1.06	83	4.71	wnw.	11.8	2,869	4,100	10/10 A.St., wnw.
10:46	985.7	7.8	52	ne.	4.0	2,876	724.3	− 1.9	0.20	94	4.90	wnw.	14.3	2,818	4,050	
						2,750	735.8	− 1.6	.....	93	4.98	nw.	13.6	2,694	3,920	
						2,500	759.2	− 1.1	.....	90	5.01	nnw.	12.3	2,450	3,720	
11:00	985.8	8.2	49	ne.	5.4	2,278	780.7	− 0.7	−0.07	87	5.01	n.	11.1	2,232	3,580	
						2,250	783.5	− 0.7	.....	87	5.01	n.	11.1	2,205	3,560	
						2,000	808.5	− 0.9	.....	84	4.76	ne.	11.3	1,960	3,400	
11:10	985.8	8.5	50	ne.	5.4	1,985	809.8	− 0.9	0.16	84	4.76	ne.	11.3	1,945	3,350	
						1,750	834.5	0.1	.....	68	4.18	ne.	11.4	1,715	3,860	
						1,500	860.4	1.1	.....	52	3.44	ene.	11.4	1,470	4,410	
11:29	985.8	8.9	49	ne.	6.7	1,287	883.4	2.0	−1.76	38	2.68	ene.	11.5	1,262	4,130	
						1,250	887.4	1.3	.....	39	2.62	ene.	13.2	1,225	4,090	
11:37	985.8	9.1	47	ne.	7.2	1,185	894.6	0.2	0.93	40	2.48	ene.	16.1	1,162	4,000	
						1,000	915.0	1.9	.....	47	3.29	ene.	13.9	980	2,580	
11:48	985.8	9.2	44	ne.	6.7	777	941.1	4.0	1.36	55	4.47	ne.	11.2	762	860	
						750	944.0	4.4	.....	54	4.52	ne.	10.9	735	800	
						500	973.3	7.8	.....	47	4.97	ne.	7.9	490	230	
11:53	985.8	9.2	44	ne.	6.7	396	985.8	9.2	.....	44	5.12	ne.	6.7	388	.....	6/10 Cl.St., w.; 4/10 A.St., wnw.

October 10, 1916.

P. M.																
3:47	981.6	14.8	31	ssw.	4.0	396	981.6	14.8	.....	31	5.22	ssw.	4.0	388	.....	2/10 Cl.St., nw.
						500	969.1	13.3	.....	31	4.73	ssw.	4.4	490	0	
4:32	980.9	13.9	30	ssw.	3.6	660	950.4	10.9	1.48	32	4.17	s.	5.0	647	0	Few Cl.Cu., nw.; 2/10 A.Cu., w.
						750	939.3	9.7	.....	35	4.21	s.	5.4	735	70	
						1,000	910.4	6.5	.....	42	4.07	s.	6.6	980	540	
6:50	979.2	11.5	34	s.	4.9	1,074	902.2	5.6	1.28	44	4.00	s.	7.0	1,053	680	9/10 A.Cu., w.
						1,250	883.0	4.4	.....	46	3.95	s.	7.7	1,225	1,010	
7:39	978.8	11.5	36	s.	5.4	1,322	875.0	3.9	0.69	47	3.80	s.	8.0	1,296	1,150	
						1,500	856.0	6.3	.....	48	4.58	s.	5.8	1,470	.....	
7:42	978.8	11.4	36	s.	4.9	1,514	854.6	6.5	−1.38	48	4.64	s.	5.6	1,484	.....	
						1,500	856.0	6.3	.....	48	4.58	s.	5.6	1,470	.....	
7:46	978.8	11.1	36	s.	4.9	1,345	873.5	4.0	0.83	47	3.82	s.	5.6	1,309	1,170	
						1,250	882.3	4.7	.....	46	3.93	s.	5.9	1,225	1,010	
						1,000	909.5	6.8	.....	44	4.35	s.	6.9	980	540	
						750	937.6	8.9	.....	41	4.67	s.	7.9	735	70	
8:07	978.7	10.1	39	s.	4.5	712	942.3	9.2	0.88	41	4.77	s.	8.1	698	0	
						500	966.4	11.1	.....	39	5.15	s.	8.3	490	0	
8:13	978.7	10.0	40	s.	4.5	486	968.2	11.2	−1.33	39	5.19	s.	8.3	476	0	
8:16	978.7	10.0	40	s.	4.5	396	978.7	10.0	.....	40	4.91	s.	4.5	388	.....	9/10 A.Cu., w.

TABLE 8.—*Free-air data from kite flights at Drexel Aerological Station, October, 1916*—Continued.

October 11, 1916.

Surface.						At different heights above sea.										Remarks.
Time.	Pressure.	Temperature.	Relative humidity.	Wind.		Altitude.	Pressure.	Temperature.	$\frac{\Delta t}{100\ m.}$	Humidity.		Wind.		Potential.		
				Dir.	Vel.					Rel.	Vap. pres.	Dir.	Vel.	Gravity.	Electric.	
A. M.	*mb.*	*°C.*	%		*m. p. s.*	*m.*	*mb.*	*°C.*		%	*mb.*		*m. p. s.*	*10^5 ergs.*	*volts.*	
7:26	975.2	10.2	41	s.	5.4	396	975.2	10.2	.....	41	5.10	s.	5.4	388	.....	10/10 St. Cu., sw.
						500	962.8	9.8	.....	41	4.97	s.	7.2	490	0	
						750	934.4	8.9	.....	41	4.67	ssw.	11.4	735	0	
7:34	975.1	10.3	40	s.	4.9	847	923.5	8.5	0.38	41	4.55	ssw.	13.0	830	0	
						1,000	907.5	7.6	.....	45	4.70	ssw.	12.7	980	770	
						1,250	879.6	6.2	.....	50	4.74	ssw.	12.2	1,225	1,990	
7:53	975.0	10.7	38	s.	6.7	1,361	867.6	5.6	0.56	53	4.82	ssw.	12.0	1,334	2,280	
						1,500	853.2	7.2	.....	72	7.32	ssw.	9.9	1,470	2,640	
7:58	975.0	10.8	38	s.	5.4	1,589	843.9	8.2	−1.14	84	9.13	ssw.	8.5	1,557	2,880	10/10 St.Cu., sw.
						1,750	827.5	7.9	.....	85	9.05	ssw.	10.6	1,715	3,500	
						2,000	802.5	7.5	.....	86	8.92	sw.	13.8	1,960	4,600	
8:15	974.8	11.2	38	s.	5.4	2,022	800.6	7.5	0.16	86	8.92	sw.	14.1	1,982	4,690	Base of St. Cu., about 2,100 m.
						2,250	778.0	5.9	.....	88	8.18	sw.	13.2	2,205	5,690	
						2,500	754.3	4.2	.....	89	7.34	sw.	12.3	2,450	6,960	
8:33	974.4	11.6	37	s.	5.8	2,576	747.8	3.7	0.69	90	7.16	sw.	12.0	2,524	7,360	
						2,750	731.5	4.5	.....	74	6.23	sw.	11.8	2,694	8,230	
8:40	974.3	11.7	37	s.	6.3	2,773	729.9	4.6	−0.46	72	6.11	sw.	11.8	2,717	8,290	
						3,000	709.1	3.6	.....	71	5.62	sw.	10.8	2,939	8,940	
9:10	973.9	12.0	36	s.	6.7	3,199	692.3	2.7	0.45	71	5.27	sw.	9.9	3,134	9,500	10/10 St. Cu., sw.
						3,250	687.5	2.4	.....	68	4.94	sw.	9.7	3,184	9,570	
						3,500	666.8	0.9	.....	54	3.52	sw.	8.9	3,429	10,170	
						3,750	646.9	−0.6	.....	40	2.33	sw.	8.1	3,673	11,310	
9:52	973.7	12.4	36	ssw.	8.0	3,791	643.1	−0.8	0.59	38	2.17	sw.	8.0	3,713	11,500	9/10 St.Cu., sw.
																Kites broke away.

October 12, 1916.

A. M.																
11:15	961.8	21.0	50	sw.	10.7	396	961.8	21.0	.....	50	12.44	sw.	10.7	388	.....	3/10Cl.St.,wsw; 2/10,St.Cu.,wsw.
						500	950.0	19.2	.....	55	12.24	sw.	11.2	490	.....	
11:24	961.8	21.8	47	sw.	13.0	684	930.1	16.0	1.74	64	11.64	sw.	12.1	671	0	
						750	923.0	16.5	.....	66	11.62	sw.	12.0	735	250	
						1,000	896.0	13.4	.....	75	11.53	sw.	11.8	980	1,170	
						1,250	869.9	11.4	.....	84	11.32	wsw.	11.6	1,225	2,200	
11:52	961.8	22.7	48	sw.	10.3	1,337	861.0	10.7	0.81	87	11.20	wsw.	11.5	1,311	2,550	2/10, Cl.St., wsw.
						1,500	844.2	11.2	.....	79	10.51	wsw.	15.0	1,470	3,220	
						1,750	819.2	11.9	.....	67	9.33	wsw.	20.4	1,715	3,840	
P. M.																
12:03	961.8	23.1	47	sw.	8.5	1,762	818.3	11.9	−0.28	66	9.19	wsw.	20.7	1,727	3,870	
						2,000	795.2	10.2	.....	58	7.22	wsw.	20.2	1,960	4,460	
						2,250	771.3	8.3	.....	49	5.37	wsw.	19.6	2,205	5,090	
12:32	961.3	24.0	44	wsw.	6.7	2,293	767.3	8.0	0.73	48	5.15	wsw.	19.5	2,247	5,200	
						2,500	748.2	7.7	.....	45	4.73	wsw.	20.0	2,450	5,760	
12:38	961.2	24.0	44	wsw.	7.6	2,540	744.6	7.7	0.12	45	4.73	wsw.	20.1	2,489	5,870	3/10, St.Cu., wsw.
						2,750	725.5	6.0	.....	55	5.14	wsw.	20.3	2,694	6,440	
12:47	961.0	24.0	45	wsw.	8.5	2,859	716.3	5.1	0.90	60	5.27	wsw.	20.4	2,801	.....	6/10 St.Cu., wsw.
						2,750	725.5	6.2	.....	57	5.40	wsw.	19.6	2,694	6,250	
1:02	960.8	23.9	44	wsw.	8.9	2,521	746.1	8.4	0.28	50	5.51	wsw.	17.9	2,470	4,890	
						2,500	748.2	8.5	.....	50	5.55	wsw.	17.6	2,450	4,770	
						2,250	771.2	9.2	.....	51	5.94	wsw.	14.4	2,205	3,920	
1:21	960.6	24.6	42	wsw.	9.8	2,126	782.6	9.5	−1.49	52	6.17	wsw.	12.8	2,083	4,580	
						2,000	794.5	7.5	.....	62	6.47	wsw.	13.4	1,960	3,080	
1:23	960.5	24.7	42	wsw.	9.4	1,931	801.2	6.6	1.05	67	6.53	wsw.	13.8	1,893	3,030	St. Cu. base about 1,900 m.
						1,750	818.8	8.5	.....	67	7.44	wsw.	13.5	1,715	2,520	
						1,500	843.7	11.1	.....	67	8.85	wsw.	13.0	1,470	1,810	6/10 St.Cu. wsw.
1:43	960.3	25.2	41	w.	7.2	1,300	864.2	13.2	1.18	67	10.16	wsw.	12.7	1,274	1,120	
						1,250	869.0	13.8	.....	65	10.26	wsw.	12.6	1,225	950	
						1,000	895.0	16.8	.....	58	11.10	w.	12.0	980	380	
						750	921.9	19.7	.....	50	11.48	w.	11.4	735	30	
2:06	960.0	25.1	41	w.	8.9	732	923.6	19.9	1.64	49	11.39	w.	11.4	718	0	
						500	948.7	23.7	.....	43	12.60	w.	8.8	490	0	
2:13	960.0	25.4	41	w.	7.6	396	960.0	25.4	.....	41	13.30	w.	7.6	388	.....	

October 13, 1916.

A. M.																
7:34	979.1	6.0	80	wnw.	4.9	396	979.1	6.0	.....	80	7.48	wnw.	4.9	388	.....	FewSt.Cu.,nnw.;nearhorizon.
						500	966.8	8.0	.....	69	7.40	nw.	7.8	490	0	
7:37	979.2	6.3	78	wnw.	4.9	618	953.2	10.3	−1.94	57	7.14	nnw.	11.1	606	0	
						750	937.8	9.1	.....	57	6.59	nnw.	10.9	735	680	
						1,000	910.3	6.8	.....	56	5.53	nnw.	10.6	980	1,220	
8:11	979.8	8.3	68	nw.	3.6	1,246	884.1	4.6	0.91	55	4.66	nnw.	10.2	1,221	2,100	Few St.Cu., nnw.
						1,500	856.6	4.6	.....	34	2.88	n.	11.0	1,470	3,040	
8:20	979.9	8.7	67	wnw.	4.5	1,516	855.6	4.6	0.00	33	2.80	n.	11.0	1,486	3,100	
						1,750	830.7	3.4	.....	35	2.73	n.	11.5	1,715	3,660	
						2,000	806.0	2.1	.....	36	2.56	n.	12.0	1,960	4,260	
8:50	980.3	10.4	62	wnw.	3.6	2,227	784.3	0.9	0.52	38	2.48	n.	12.4	2,182	4,800	Few St.Cu., nnw.
						2,250	782.0	0.8	.....	38	2.46	n.	12.4	2,205	4,910	
						2,500	758.7	−0.3	.....	37	2.21	n.	12.8	2,450	6,140	
						2,750	736.0	−1.4	.....	36	1.96	nnw.	13.1	2,694	6,830	
10:16	980.4	14.6	41	nw.	2.7	2,944	718.9	−2.2	0.43	35	1.78	nnw.	13.4	2,884	6,400	Few St.Cu., nnw.
						3,000	714.0	−2.0	.....	35	1.81	nnw.	13.8	2,939	6,560	
						3,250	692.1	−1.0	.....	32	1.80	nnw.	15.5	3,184	7,280	
						3,500	671.0	0.1	.....	29	1.73	nnw.	17.2	3,429	7,990	
10:24	980.4	14.9	39	nw.	3.1	3,608	661.8	0.5	−0.41	28	1.77	nnw.	17.9	3,534	8,305	
						3,750	650.5	0.1	.....	27	1.66	nnw.	18.6	3,673	8,710	
						4,000	630.4	−0.5	.....	24	1.41	nnw.	19.8	3,918	9,440	
11:03	980.4	16.1	35	nw.	3.1	4,094	623.1	−0.8	0.27	23	1.31	nnw.	20.2	4,010	9,830	1/10 St.Cu., nnw.
						4,250	610.8	−1.5	.....	22	1.19	nnw.	19.4	4,162	10,000	
						4,500	591.8	−2.6	.....	20	0.98	nw.	18.0	4,407	.....	
						4,750	573.7	−3.8	.....	18	0.80	nw.	16.6	4,651	.....	

TABLE 8.—*Free-air data from kite flights at Drexel Aerological Station, October, 1916*—Continued.

October 13, 1916—Continued.

Surface.						At different heights above sea.										Remarks.
Time.	Pressure.	Temperature.	Relative humidity.	Wind.		Altitude.	Pressure.	Temperature.	$\frac{\Delta t}{100\ m.}$	Humidity.		Wind.		Potential.		
				Dir.	Vel.					Rel.	Vap. pres.	Dir.	Vel.	Gravity.	Electric.	
P. M.	*mb.*	*° C.*	%		*m. p. s.*	*m.*	*mb.*	*° C.*		%	*mb.*		*m. p. s.*	*10^5 ergs.*	*volts.*	
12:01	980.1	17.9	34	nnw.	2.7	4,849	566.7	−4.2	0.50	17	0.73	nw.	16.1	4,748	.....	
						4,750	573.7	−3.7	.....	17	0.76	nw.	16.1	4,651	.....	
						4,500	591.6	−2.3	.....	17	0.86	nw.	16.1	4,407	.....	
						4,250	610.0	−0.9	.....	16	0.91	nnw.	16.1	4,162	.....	
12:14	979.9	17.7	33	wnw.	2.7	4,134	618.9	−0.3	−0.03	16	0.95	nnw.	16.1	4,049	8,520	
						4,000	629.2	−0.3	.....	18	1.07	nnw.	16.2	3,918	8,120	
12:18	979.9	17.6	33	wnw.	2.7	3,752	649.2	−0.4	0.18	22	1.30	nnw.	16.4	3,675	7,210	
						3,500	669.8	0.0	.....	23	1.41	nnw.	14.2	3,429	6,280	
						3,250	691.0	0.5	.....	24	1.52	nnw.	12.1	3,184	5,360	
12:22	979.8	17.7	35	wnw.	3.1	3,127	701.6	0.7	−0.24	24	1.54	nnw.	11.0	3,063	4,910	
						3,000	713.0	0.4	.....	22	1.38	nnw.	11.1	2,939	4,440	
						2,750	735.3	−0.2	.....	18	1.08	nnw.	11.3	2,694	3,510	
12:29	979.8	17.8	36	nw.	3.1	2,675	742.4	−0.4	0.51	17	1.00	nnw.	11.4	2,621	3,240	
						2,500	758.0	0.5	.....	20	1.27	nnw.	10.7	2,450	2,590	
						2,250	781.3	1.8	.....	24	1.67	nnw.	9.7	2,205	1,670	
						2,000	805.3	3.1	.....	28	2.37	n.	8.6	1,960	750	
						1,750	830.2	4.3	.....	32	2.66	n.	7.6	1,715	.....	
						1,500	856.6	5.6	.....	38	3.46	n.	6.6	1,470	.....	
12:46	979.6	17.7	30	n.	2.7	1,406	868.2	6.1	1.11	38	3.58	n.	6.2	1,378	.....	Few St.Cu., nnw.
						1,250	883.6	7.8	.....	38	4.02	n.	6.6	1,225	.....	
						1,000	911.1	10.6	.....	38	4.86	nnw.	7.2	980	.....	
1:01	979.4	18.3	28	nnw.	3.1	858	927.3	12.2	1.34	38	5.40	nnw.	7.6	840	.....	
						750	937.8	13.7	.....	36	5.64	nnw.	6.5	735	.....	
						500	967.5	17.0	.....	31	6.01	nnw.	4.1	490	.....	
1:06	979.3	18.4	29	nnw.	3.1	396	979.3	18.4	.....	29	6.14	nnw.	3.1	388	.....	Few St.Cu., nnw.

October 14, 1916.

A. M.																
7:30	974.0	10.0	44	ssw.	7.2	396	974.0	10.0	.....	44	5.40	ssw.	7.2	388	.....	8/10 A.Cu., w.
						500	961.9	11.4	.....	42	5.66	ssw.	11.4	490	350	
7:32	973.9	10.3	43	ssw.	7.6	626	947.5	13.2	−1.39	39	5.92	ssw.	16.4	614	773	
						750	933.5	12.5	.....	38	5.51	ssw.	15.4	735	1,190	
						1,000	905.8	11.2	.....	36	4.79	ssw.	13.5	980	2,615	
7:47	973.8	11.2	42	ssw.	6.3	1,064	899.1	10.9	0.53	35	4.56	ssw.	13.0	1,043	3,000	
						1,250	879.5	10.2	.....	33	4.11	ssw.	11.8	1,225	3,430	7/10 A.Cu., w.
						1,500	853.3	9.3	.....	31	3.63	ssw.	10.1	1,470	4,380	
8:15	973.5	12.2	38	ssw.	8.5	1,751	827.6	8.4	0.36	28	3.09	ssw.	8.5	1,716	5,500	
						2,000	802.8	7.6	.....	25	2.61	ssw.	8.8	1,960	6,410	
8:44	973.4	12.6	39	ssw.	8.9	2,226	781.1	6.8	0.34	23	2.27	ssw.	10.9	2,181	7,230	4/10 A.Cu., w.
						2,250	778.9	6.9	.....	23	2.29	ssw.	10.8	2,205	7,320	
8:46	973.4	12.9	39	ssw.	8.9	2,455	759.8	8.0	−0.52	22	2.36	ssw.	10.0	2,406	8,070	
						2,500	755.6	7.7	.....	22	2.31	ssw.	9.9	2,450	8,230	
						2,750	732.9	6.0	.....	20	1.87	sw.	9.3	2,694	9,430	
						3,000	711.0	4.4	.....	19	1.59	wsw.	8.7	2,939	10,680	
10:20	972.9	17.2	34	sw.	8.9	3,105	702.0	3.7	0.66	19	1.51	wsw.	8.4	3,042	10,870	
						3,250	689.5	2.8	.....	20	1.49	wsw.	7.7	3,184	.....	
						3,500	668.5	1.4	.....	21	1.42	wsw.	6.4	3,429	.....	
						3,750	648.0	0.1	.....	22	1.35	wsw.	5.2	3,673	.....	
10:40	972.7	18.1	33	sw.	8.0	3,770	646.4	0.0	0.60	22	1.34	wsw.	5.1	3,693	.....	
						3,750	648.0	0.1	.....	22	1.35	wsw.	5.2	3,673	.....	
						3,500	668.5	1.7	.....	22	1.52	wsw.	6.0	3,429	.....	22°-halo, 11:05 a. m. to end of flight.
						3,250	689.5	3.3	.....	22	1.70	wsw.	6.9	3,184	.....	
						3,000	711.0	4.8	.....	22	1.89	wsw.	7.7	2,939	7,010	
						2,750	732.9	6.4	.....	22	2.11	wsw.	8.5	2,694	6,670	8/10 Cl.St., w.
11:12	972.4	19.0	32	sw.	7.2	2,583	747.8	7.5	0.34	22	2.28	wsw.	9.1	2,531	6,440	
						2,500	755.6	7.8	.....	21	2.22	wsw.	9.4	2,450	6,310	
						2,250	778.9	8.6	.....	18	2.01	sw.	10.4	2,205	5,860	
11:32	972.1	19.3	29	sw.	9.4	2,060	796.5	9.3	−0.28	16	1.88	sw.	11.2	2,019	5,470	
						2,000	802.7	9.1	.....	17	1.97	sw.	11.2	1,960	5,320	
						1,750	827.0	8.4	.....	22	2.42	ssw.	11.1	1,715	4,680	
						1,500	852.0	7.7	.....	26	2.73	ssw.	11.0	1,470	3,940	
11:47	971.8	19.8	27	ssw.	8.9	1,448	857.5	7.6	−1.14	27	2.82	ssw.	11.0	1,419	3,630	
						1,250	878.0	9.9	.....	29	3.54	ssw.	10.8	1,225	2,450	
						1,000	904.8	12.7	.....	31	4.55	ssw.	10.4	980	1,030	
P. M.																
12:08	971.5	20.1	24	ssw.	10.3	800	926.5	15.0	1.29	33	5.63	ssw.	10.2	784	0	
						750	932.0	15.6	.....	32	5.67	ssw.	10.0	735	0	
						500	959.7	18.9	.....	26	5.68	ssw.	9.2	490	0	
12:13	971.3	20.2	24	ssw.	8.9	396	971.3	20.2	.....	24	5.68	ssw.	8.9	388	.....	9/10 Cl.St., w.

October 16, 1916, series (No. 1).

A. M.																
7:34	965.9	6.5	100	sw.	5.4	396	965.9	6.5	.....	100	9.68	sw.	5.4	388	.....	9/10 Cl., nnw.; l't. fog, sw.
						500	953.5	10.8	.....	77	9.91	sw.	10.8	490	.....	
7:36	965.9	6.6	100	sw.	5.4	550	948.1	12.8	−4.09	65	9.61	sw.	13.4	539	.....	
						750	926.0	13.8	.....	53	8.36	wsw.	13.0	735	.....	
						1,000	899.2	15.0	.....	39	6.65	w.	12.6	980	1,150	
7:50	965.9	7.6	97	sw.	6.3	1,052	893.3	15.3	−0.50	36	6.26	w.	12.4	1,031	1,310	Lt. fog ended 7:50 a. m.
						1,250	873.1	13.9	.....	37	5.88	w.	12.7	1,225	1,940	
						1,500	847.5	12.0	.....	39	5.47	wnw.	13.0	1,470	2,600	
8:08	965.9	8.9	82	wsw.	5.8	1,725	824.9	10.4	0.73	41	5.17	wnw.	13.3	1,691	3,200	
						1,750	823.0	10.2	.....	41	5.10	wnw.	13.1	1,715	3,280	
						2,000	798.3	7.9	.....	47	5.01	wnw.	11.3	1,960	4,050	
8:23	966.0	9.7	91	wsw.	4.9	2,240	775.3	5.8	0.89	52	4.79	wnw.	9.5	2,195	4,800	5/10 Cl., nnw.
						2,250	779.2	5.8	.....	52	4.79	wnw.	9.6	2,205	4,820	
						2,500	751.3	4.8	.....	50	4.30	wnw.	11.5	2,450	5,430	
						2,750	728.9	3.8	.....	48	3.85	wnw.	13.4	2,694	6,040	
8:45	966.1	11.4	88	sw.	5.4	2,940	712.4	3.0	0.40	47	3.56	wnw.	14.8	2,880	6,500	3/10 Cl., nnw.
						3,000	707.0	2.8	.....	47	3.51	wnw.	14.5	2,939	6,760	

TABLE 8.—*Free-air data from kite flights at Drexel Aerological Station, October, 1916*—Continued.

October 16, 1916, series (No. 1)—Continued.

Surface.						At different heights above sea.										Remarks.
Time.	Pressure.	Temperature.	Relative humidity.	Wind.		Altitude.	Pressure.	Temperature.	$\frac{\Delta t}{100\ m.}$	Humidity.		Wind.		Potential.		
				Dir.	Vel.					Rel.	Vap. pres.	Dir.	Vel.	Gravity.	Electric.	
A. M.	*mb.*	*°C.*	%		*m. p. s.*	*m.*	*mb.*	*°C.*		%	*mb.*		*m. p. s.*	*10^5 ergs.*	*volts.*	
						3,250	686.2	2.0	.....	47	3.32	wnw.	13.1	3,184	7,560	
9:02	966.2	12.7	83	sw.	6.7	3,437	670.4	1.4	0.32	47	3.18	wnw.	12.0	3,367	8,200	Cloudless.
						3,500	665.8	1.1	.....	47	3.11	wnw.	12.3	3,429	8,260	
						3,750	645.8	− 0.3	.....	47	2.80	wnw.	13.4	3,673	8,480	
						4,000	626.1	− 1.7	.....	47	2.49	wnw.	14.5	3,918	8,690	
10:02	965.5	16.2	64	wsw.	8.5	4,202	610.3	− 2.8	0.55	47	2.27	wnw.	15.4	4,115	.....	
						4,250	606.7	− 2.9	.....	46	2.21	wnw.	15.6	4,162	.....	
						4,500	587.3	− 3.6	.....	39	1.76	wnw.	16.6	4,407	.....	
10:35	965.1	18.0	54	wsw.	8.5	4,552	583.1	− 3.7	0.12	38	1.70	wnw.	16.8	4,458	.....	
						4,500	586.6	− 3.7	.....	40	1.79	wnw.	16.5	4,407	.....	
						4,250	604.7	− 3.8	.....	47	2.09	nnw.	14.8	4,162	.....	
10:54	**964.9**	**19.1**	51	wsw.	7.2	4,151	611.6	− 3.8	0.64	50	2.22	nnw.	14.2	4,065	.....	Cloudless.
						4,000	624.0	− 2.8	.....	50	2.42	nnw.	14.0	3,918	8,630	
						3,750	643.8	− 1.2	.....	51	2.82	nnw.	13.7	3,673	5,910	
						3,500	664.1	0.4	.....	51	3.21	nw.	13.5	3,429	5,370	
						3,250	685.2	2.0	.....	52	3.67	nw.	13.2	3,184	4,820	
11:25	964.7	20.3	41	wsw.	8.9	3,102	697.8	2.9	0.66	52	3.92	nw.	13.0	3,037	4,500	
						3,000	706.9	3.6	.....	52	4.11	nw.	12.8	2,939	4,280	
						2,750	728.9	5.2	.....	52	4.60	wnw.	12.3	2,694	3,740	
						2,500	751.9	6.9	.....	52	5.17	wnw.	11.9	2,450	3,200	
11:45	964.6	21.2	40	w.	9.4	2,406	760.2	7.5	0.74	52	5.39	wnw.	11.7	2,358	3,000	
						2,250	779.9	8.7	.....	50	5.62	wnw.	11.8	2,205	2,750	
						2,000	798.9	10.5	.....	46	5.84	w.	12.4	1,960	2,350	
						1,750	823.2	12.3	.....	42	6.01	w.	12.8	1,715	1,940	Cloudless.
P. M.																
12:02	964.5	21.8	39	w.	10.3	1,742	823.4	12.4	0.65	42	6.05	w.	12.8	1,707	1,930	
						1,500	847.5	14.0	.....	43	6.87	w.	12.4	1,470	1,550	
						1,250	873.1	15.6	.....	43	7.62	w.	12.0	1,225	1,080	
						1,000	899.2	17.3	.....	44	8.59	w.	11.6	980	300	
12:27	964.4	22.4	35	w.	10.3	902	909.4	17.9	0.87	44	9.02	w.	11.4	884	0	
						750	926.0	19.2	.....	41	9.12	w.	10.4	735	0	
						500	953.1	21.4	.....	37	9.43	w.	8.7	490	0	
12:34	964.3	22.3	35	w.	8.0	396	964.3	22.3	.....	35	9.43	w.	8.0	388	.....	Cloudless.

October 16, 1916, series (No. 2).

P. M.																
1:15	964.0	24.0	32	wnw.	6.7	396	964.0	24.0	.....	32	9.55	wnw.	6.7	388	.....	Cloudless.
						500	952.2	22.7	.....	32	8.82	wnw.	7.4	490	0	
						750	925.3	19.6	.....	33	7.53	nw.	9.0	735	0	
1:25	963.9	23.8	34	wnw.	5.8	774	922.7	19.3	1.24	33	7.39	nw.	9.2	759	0	
						1,000	898.8	16.9	.....	35	6.74	nw.	10.4	980	460	
1:37	963.8	24.4	32	nw.	5.8	1,182	879.4	15.0	1.05	36	6.14	nw.	11.3	1,159	835	
						1,250	872.2	14.3	.....	37	6.03	nw.	11.6	1,225	1,030	
						1,500	846.8	11.5	.....	42	5.70	nw.	12.5	1,470	1,740	
1:50	963.6	24.8	30	nw.	6.7	1,696	827.1	9.4	1.09	45	5.31	nw.	13.2	1,662	2,300	Cloudless.
						1,750	822.0	9.0	.....	47	5.40	nw.	13.4	1,715	2,390	
						2,000	796.5	6.9	.....	53	5.27	nw.	14.6	1,960	2,810	
2:07	963.6	24.1	29	nw.	6.7	2,236	774.5	4.9	0.83	60	5.20	nw.	15.7	2,191	3,200	
						2,000	796.5	5.5	.....	59	5.33	nw.	15.6	1,960	.....	
						1,750	822.0	7.9	.....	55	5.86	nw.	15.3	1,715	.....	
						1,500	846.8	10.3	.....	50	6.27	nw.	15.0	1,470	.....	
						1,250	872.2	12.7	.....	46	6.76	nw.	14.7	1,225	.....	
2:24	963.8	24.1	29	nw.	7.6	1,182	879.4	14.9	0.95	42	7.11	nw.	14.4	1,159	.....	
						1,250	872.2	14.2	.....	43	6.96	nw.	13.8	1,225	.....	
						1,500	846.8	11.6	.....	48	6.56	nw.	11.5	1,470	.....	
2:45	964.0	24.0	30	nw.	6.7	1,731	824.0	9.2	1.04	53	6.17	nw.	9.4	1,697	.....	
						1,750	822.0	9.1	.....	53	6.13	nw.	9.6	1,715	.....	
						2,000	796.5	7.3	.....	54	5.52	nw.	11.7	1,960	.....	
						2,250	772.9	5.5	.....	56	5.06	nw.	13.8	2,205	3,210	
						2,500	750.0	3.7	.....	57	4.54	nw.	15.9	2,450	3,490	
2:55	964.1	23.9	30	nw.	6.7	2,695	732.6	2.3	0.72	58	3.60	nw.	17.5	2,641	3,700	
						2,750	727.4	1.9	.....	59	4.14	nw.	17.3	2,694	3,810	
						3,000	705.0	− 0.1	.....	64	3.89	nw.	16.3	2,939	4,300	
3:10	964.2	24.1	30	nw.	4.0	3,208	687.3	− 1.8	0.80	68	3.58	nw.	15.5	3,143	4,700	
						3,250	683.5	− 1.1	.....	67	3.73	nw.	20.0	3,184	4,790	
3:11	964.3	24.1	30	nw.	4.0	3,259	683.0	− 1.0	−1.57	67	3.77	nw.	21.0	3,193	4,810	Few St.Cu., nw.
						3,500	662.7	− 2.1	.....	63	3.23	nw.	22.7	3,429	5,280	
3:18	964.3	23.8	30	nw.	6.7	3,615	653.2	− 2.6	0.06	61	3.00	nw.	23.5	3,541	5,500	
						3,500	662.7	− 3.0	.....	64	3.04	nnw.	22.8	3,429	5,000	
3:27	964.3	23.9	30	nnw.	6.7	3,460	665.8	− 3.1	1.18	65	3.06	nnw.	22.5	3,389	4,820	
						3,250	683.5	− 0.6	.....	59	3.43	nnw.	21.9	3,184	4,260	
						3,000	705.0	2.3	.....	53	3.82	nnw.	21.3	2,939	3,720	
3:52	964.5	24.0	28	nnw.	4.5	2,892	714.8	3.6	−1.50	50	3.96	nnw.	21.0	2,834	3,490	
						2,750	727.4	1.5	.....	54	3.68	nnw.	19.7	2,694	3,180	
3:58	964.5	23.9	28	nnw.	5.8	2,692	732.6	0.6	0.84	56	3.57	nnw.	19.2	2,638	3,060	
						2,500	750.0	2.2	.....	56	4.01	nnw.	17.5	2,450	2,660	
						2,250	772.9	4.3	.....	55	4.57	nnw.	15.4	2,205	2,130	
						2,000	796.5	6.4	.....	55	5.29	nw.	13.3	1,960	1,590	
						1,750	822.0	8.5	.....	54	5.99	nw.	11.1	1,715	1,060	
4:27	964.8	22.4	27	nnw.	7.2	1,715	825.6	8.8	0.84	54	6.12	nw.	10.8	1,681	980	
						1,500	847.5	10.6	.....	48	6.13	nw.	12.5	1,470	570	
						1,250	873.0	12.7	.....	40	5.88	nnw.	14.5	1,225	90	
4:37	964.9	21.9	27	nnw.	5.4	1,204	877.8	13.1	1.07	39	5.88	nnw.	14.9	1,180	0	Cloudless.
						1,000	899.2	15.3	.....	34	5.91	nnw.	13.7	980	0	
4:45	965.0	21.6	26	nnw.	6.3	811	919.5	17.3	0.96	30	5.92	nnw.	12.6	795	0	
						750	926.0	17.9	.....	30	6.15	nnw.	11.5	735	0	
						500	953.5	20.3	.....	28	6.67	nnw.	7.2	490	0	
4:48	965.1	21.3	27	nnw.	5.4	396	965.1	21.3	.....	27	6.84	nnw.	5.4	388	.....	Cloudless.

TABLE 8.—*Free-air data from kite flights at Drexel Aerological Station, October, 1916*—Continued.

October 16, 1916, series (No. 3.)

Surface.						At different heights above sea.										Remarks.
Time.	Pressure.	Temperature.	Relative humidity.	Wind.		Altitude.	Pressure.	Temperature.	$\frac{\Delta t}{100\ m.}$	Humidity.		Wind.		Potential.		
				Dir.	Vel.					Rel.	Vap. pres.	Dir.	Vel.	Gravity.	Electric.	
A. M.	*mb.*	°*C.*	%		*m. p. s.*	*m.*	*mb.*	°*C.*		%	*mb.*		*m. p. s.*	10^6 *ergs.*	*volts.*	
5:22	965.9	19.6	28	n.	7.2	396	965.9	19.6	.....	28	6.39	n.	7.2	388	.....	Cloudless.
						500	954.1	18.6	.....	28	6.00	n.	9.8	490	.....	
						750	927.0	16.1	.....	29	5.31	n.	16.2	735	.....	
5:30	966.2	18.8	31	n.	7.2	782	923.5	15.8	0.98	29	5.21	n.	17.0	767	.....	
						1,000	900.2	13.3	.....	32	4.89	n.	16.2	980	.....	
5:40	966.5	18.2	33	n.	5.4	1,141	885.1	11.7	1.14	34	4.68	n.	15.7	1,119	810	
						1,250	873.8	10.6	.....	35	4.47	n.	14.8	1,225	910	
5:50	966.9	17.8	36	n.	7.6	1,475	850.3	8.3	1.02	38	4.16	nnw.	12.9	1,446	1,105	
						1,500	847.7	8.1	.....	38	4.10	nnw.	13.0	1,470	1,170	
						1,750	822.5	6.2	.....	41	3.89	nnw.	14.0	1,715	1,800	
						2,000	798.0	4.2	.....	43	3.55	nw.	14.9	1,960	2,440	
6:06	967.4	16.9	36	n.	4.5	2,225	776.1	2.5	0.77	45	3.29	nw.	15.8	2,180	3,000	
						2,250	773.8	2.5	.....	44	3.22	nw.	16.3	2,205	3,030	
6:15	967.7	16.8	36	n.	4.9	2,495	750.6	2.0	0.19	34	2.40	nw.	21.7	2,445	3,370	
6:26	968.1	16.6	36	n.	5.4	2,740	728.5	2.4	−0.16	41	2.98	nw.	21.6	2,685	3,790	
						2,750	727.1	2.4	.....	41	2.98	nw.	21.6	2,694	3,820	
						3,000	705.0	1.8	.....	41	2.85	nw.	21.3	2,939	4,410	
						3,250	683.8	1.3	.....	42	2.82	nw.	20.9	3,184	5,000	
6:51	968.9	15.9	37	n.	5.8	3,353	675.3	1.1	0.52	42	2.78	nw.	20.8	3,285	5,250	Cloudless.
						3,250	683.8	1.2	.....	40	2.66	nw.	21.1	3,184	4,990	
						3,000	705.0	1.6	.....	35	2.40	nw.	21.9	2,939	4,360	
						2,750	727.1	1.9	.....	30	2.10	nw.	22.7	2,694	3,730	
7:30	969.8	14.1	45	n.	4.9	2,574	743.3	2.1	−0.13	26	1.85	nw.	23.2	2,522	3,360	
						2,500	750.1	1.4	.....	24	1.62	nw.	21.7	2,450	3,240	
7:38	969.9	13.9	46	n.	5.4	2,383	761.1	0.4	0.89	22	1.38	nnw.	19.2	2,335	3,060	
						2,250	773.8	1.1	.....	26	1.72	nnw.	18.1	2,205	2,840	
						2,000	798.0	2.3	.....	34	2.45	n.	16.1	1,960	2,370	
						1,750	823.4	3.5	.....	41	3.22	n.	14.2	1,715	1,900	
8:08	970.5	12.8	47	nne.	7.6	1,593	839.3	4.3	0.49	46	3.82	n.	12.9	1,561	1,500	
						1,500	849.0	4.8	.....	48	4.13	n.	12.9	1,470	1,460	
						1,250	875.3	6.1	.....	52	4.90	n.	12.9	1,225	1,080	
8:22	970.9	12.5	48	nne.	6.7	1,147	886.7	6.6	0.52	54	5.26	n.	12.9	1,124	920	
						1,000	902.6	7.4	.....	55	5.67	n.	13.7	980	600	
						750	930.6	8.7	.....	56	6.30	n.	15.2	735	50	
8:35	971.3	11.8	50	nne.	6.3	729	933.2	8.8	0.53	56	6.34	n.	15.3	715	0	
						500	959.4	10.7	.....	53	6.82	n.	9.4	490	0	
8:41	971.5	11.6	51	n.	6.7	396	971.5	11.6	.....	51	6.97	n.	6.7	388	.....	Cloudless.

October 16-17, 1916, series (No. 4).

P. M.																
9:16	972.3	10.4	54	nne.	5.4	396	972.3	10.4	.....	54	6.81	nne.	5.4	388	.....	
						500	959.9	9.7	.....	55	6.62	nne.	7.4	490	0	
						750	931.7	8.1	.....	56	6.05	nne.	12.3	735	0	
9:26	972.4	10.3	53	nne.	5.8	897	915.3	7.2	0.64	57	5.79	nne.	15.2	879	280	Cloudless.
						1,000	904.0	7.5	.....	52	5.39	nne.	14.9	980	520	
9:34	972.6	10.2	53	ne.	4.9	1,147	888.1	7.9	−0.28	44	4.69	n.	14.5	1,124	860	
						1,250	877.0	7.1	.....	41	4.14	n.	15.2	1,225	1,100	
						1,500	850.2	5.2	.....	35	3.10	n.	17.1	1,470	1,700	
9:50	972.8	9.4	57	nne.	5.4	1,522	848.4	5.0	0.77	34	2.96	n.	17.2	1,492	1,750	
						1,750	824.0	4.3	.....	30	2.49	n.	16.8	1,715	2,150	
						2,000	799.0	3.5	.....	26	2.04	n.	16.4	1,960	2,590	
						2,250	775.4	2.7	.....	21	1.56	nnw.	16.0	2,205	3,070	
						2,500	751.6	2.0	.....	16	1.13	nnw.	15.5	2,450	3,670	
10:19	973.2	8.3	59	nne.	5.8	2,520	750.1	1.9	0.31	16	1.12	nnw.	15.5	2,469	3,710	
						2,750	729.0	3.5	.....	22	1.73	nnw.	13.7	2,694	4,340	
10:32	973.3	7.8	61	nne.	6.3	2,958	710.3	4.9	−0.68	28	2.42	nnw.	21.6	2,898	5,090	
						3,000	706.4	4.6	.....	29	2.46	nnw.	21.5	2,939	5,240	
						3,250	685.4	3.1	.....	32	2.44	nnw.	20.6	3,184	6,140	
10:47	973.5	7.4	64	ne.	4.0	3,432	670.3	2.0	0.61	35	2.47	nnw.	20.0	3,362	6,800	
						3,500	664.7	2.0	.....	35	2.47	nnw.	19.6	3,429	.....	Cloudless.
10:54	973.5	7.2	65	ne.	3.6	3,570	659.0	2.0	−0.04	34	2.40	nnw.	19.2	3,497	.....	
						3,500	664.7	1.5	.....	35	2.38	nnw.	18.9	3,429	.....	
10:58	973.6	7.1	65	ne.	3.6	3,468	667.4	1.2	0.68	35	2.33	nnw.	18.7	3,397	.....	
						3,250	685.4	2.7	.....	35	2.60	nnw.	18.7	3,184	6,280	
						3,000	706.4	4.3	.....	36	2.99	nnw.	18.7	2,939	5,570	
11:27	973.9	6.0	69	ne.	3.1	2,927	713.3	4.8	−0.83	36	3.10	nnw.	18.7	2,868	5,360	
						2,750	729.0	3.3	.....	31	2.40	nnw.	17.7	2,694	4,860	
11:48	974.2	5.4	69	nne.	3.1	2,500	751.6	1.2	0.30	24	1.60	n.	16.3	2,450	4,130	
						2,250	775.4	2.0	.....	26	1.84	n.	16.0	2,205	3,450	
						2,000	799.0	2.8	.....	28	2.09	n.	15.8	1,960	3,030	
						1,750	824.0	3.5	.....	29	2.28	nne.	15.5	1,715	2,610	
A. M.																
12:16	974.5	4.6	73	nne.	3.1	1,504	850.0	4.2	−0.35	30	2.48	nne.	15.3	1,474	2,020	
						1,250	877.0	3.3	.....	41	3.17	nne.	13.0	1,225	1,240	
						1,000	904.5	2.4	.....	51	3.70	ne.	10.8	980	650	
12:30	974.6	4.0	76	ne.	2.2	876	918.5	2.0	0.38	56	3.95	ne.	9.7	859	380	
						750	932.6	2.5	.....	61	4.46	ne.	7.9	735	110	
						500	961.7	3.4	.....	72	5.62	ne.	4.2	490	0	
12:41	974.8	3.8	76	ne.	2.7	396	974.8	3.8	.....	76	6.10	ne.	2.7	388	.....	Cloudless.

TABLE 8.—*Free-air data from kite flights at Drexel Aerological Station, October, 1916*—Continued.

October 17, 1916, series (No. 5).

Surface.						At different heights above sea.											
Time.	Pressure.	Temperature.	Relative humidity.	Wind.		Altitude.	Pressure.	Temperature.	Δt / 100 m.	Humidity.		Wind.		Potential.		Remarks.
				Dir.	Vel.					Rel.	Vap. pres.	Dir.	Vel.	Gravity.	Electric.	
A. M.	*mb.*	*°C.*	%		*m. p. s.*	*m.*	*mb.*	*°C.*		%	*mb.*		*m. p. s.*	*10^5 ergs.*	*volts.*	
1:22	975.3	3.4	78	ne.	1.8	396	975.3	3.4	.....	78	6.08	ne.	1.8	388	.....	Cloudless.
						500	962.7	3.2	.....	78	6.00	ne.	6.9	490	0	
1:23	975.3	3.4	78	ne.	1.8	555	956.2	3.1	0.19	78	5.95	ne.	9.6	544	0	
						750	933.5	1.8	.....	74	5.15	ne.	8.7	735	170	
1:48	975.6	2.9	80	ne.	1.8	864	920.7	1.1	0.65	71	4.70	ne.	8.1	847	1,040	Cloudless.
						1,000	905.0	1.3	.....	67	4.50	ne.	8.9	980	790	
						1,250	877.0	2.0	.....	60	4.24	ne.	10.3	1,225	.....	
2:26	975.7	2.8	80	ne.	1.8	1,368	864.9	2.0	−0.04	56	3.95	ne.	11.0	1,341	.....	
3:38	975.9	1.8	83	ne.	2.2	1,308	871.2	1.1	0.09	59	3.91	ne.	2.8	1,282	.....	
						1,250	877.0	1.2	.....	59	3.93	ne.	3.2	1,225	.....	
						1,000	905.0	1.4	.....	59	3.99	ne.	5.1	980	1,240	
4:33	976.0	0.9	84	ne.	2.7	991	906.3	1.4	.....	59	3.99	ne.	5.2	972	1,260	
						1,000	905.0	1.0	.....	59	3.88	ne.	5.1	980	1,240	
6:08	976.0	−0.3	90	ene.	2.2	1,018	903.1	0.1	1.00	59	3.63	e.	5.0	998	2,000	
						1,000	905.0	0.3	.....	58	3.62	e.	4.4	980	.....	
6:15	976.0	−0.5	86	ene.	2.2	919	914.3	1.1	−0.36	56	3.71	e.	1.9	901	.....	
						750	933.7	0.5	.....	66	4.18	e.	2.0	735	.....	
						500	962.9	−0.4	.....	82	4.85	e.	2.1	490	.....	Killing frost 6:30 a. m.
6:33	976.0	−0.8	88	e.	2.2	396	976.0	−0.8	.....	88	5.02	e.	2.2	388	.....	Cloudless.

October 17, 1916, series (No. 6).

A. M.																
7:36	976.2	2.0	82	e.	2.7	396	976.2	2.0	.....	82	5.79	e.	2.7	388	.....	Cloudless.
						500	963.8	1.7	.....	62	4.28	e.	6.7	490	330	
7:41	976.3	2.1	82	e.	2.2	558	956.7	1.6	0.25	51	3.50	e.	8.7	547	520	
						750	934.5	2.0	.....	50	3.53	se.	6.6	735	1,200	Cloudless.
8:54	976.7	4.1	67	se.	4.5	940	913.2	2.5	−0.24	49	3.58	se.	4.5	922	4,600	
						1,000	906.2	3.7	.....	46	3.66	se.	4.5	980	3,970	
8:56	976.7	4.1	66	se.	4.0	1,157	889.2	6.9	−2.03	38	3.78	sse.	4.5	1,134	.....	
10:45	976.2	7.5	54	s.	4.5	1,247	879.6	5.3	1.78	44	3.92	s.	4.5	1,222	.....	Light haze 8 a. m.—11:05 a. m.
11:23	975.5	9.0	49	s.	4.5	1,331	870.0	8.4	−3.70	33	3.64	sse.	4.8	1,305	.....	
						1,250	879.0	6.1	.....	40	3.77	sse.	5.0	1,225	.....	
11:32	975.3	9.3	48	s.	5.8	1,105	894.0	1.9	.....	53	3.72	sse.	5.3	1,083	.....	
						1,250	879.0	4.3	.....	46	3.82	sse.	4.8	1,225	.....	
						1,500	851.4	8.5	.....	34	3.77	sse.	3.8	1,470	.....	
11:56	974.8	9.8	47	ssw.	5.8	1,536	848.0	9.1	−1.82	32	3.70	sse.	3.7	1,505	.....	
						1,500	851.4	8.4	.....	35	3.86	sse.	4.0	1,470	.....	
						1,250	878.5	3.5	.....	53	4.16	s.	5.8	1,225	.....	
P. M.																
12:05	974.6	11.0	44	ssw.	4.9	1,160	887.6	1.7	0.91	60	4.15	s.	6.4	1,137	2,500	
						1,000	905.2	3.2	.....	59	4.54	s.	6.1	980	1,540	
						750	933.3	5.4	.....	58	5.20	s.	5.7	735	40	
12:12	974.4	10.2	44	s.	5.8	743	934.1	5.5	1.59	58	5.24	s.	5.7	729	0	
						500	961.9	9.4	.....	48	5.66	s.	5.8	490	0	
12:17	974.2	11.0	44	s.	5.8	396	974.2	11.0	.....	44	5.78	s.	5.8	388	.....	Cloudless.

October 17, 1916, series (No. 7).

P. M.																
1:20	972.4	12.2	42	ssw.	6.3	396	972.4	12.2	.....	42	5.97	ssw.	6.3	388	.....	Cloudless.
						500	960.2	10.3	.....	45	5.64	ssw.	6.8	490	0	
1:30	972.2	12.4	42	ssw.	6.7	672	940.5	7.2	1.81	50	5.08	s.	7.7	659	0	
						750	931.6	6.5	.....	52	5.03	s.	7.7	715	400	
						1,000	903.0	4.2	.....	57	4.70	s.	7.7	980	1,750	
1:46	971.7	12.3	41	s.....	5.4	1,127	889.0	3.0	0.92	60	4.55	s.	7.7	1,105	2,550	
						1,250	875.2	5.0	.....	52	4.53	s.	8.5	1,225	3,330	
						1,500	849.0	9.1	.....	35	4.05	ssw.	10.0	1,470	4,000	
2:20	971.1	13.5	40	s.	5.4	1,606	838.2	10.8	−1.63	28	3.63	ssw.	10.7	1,574	4,230	
						1,750	823.5	10.1	.....	33	4.08	ssw.	10.7	1,715	4,550	
						2,000	798.9	8.9	.....	41	4.67	sw.	10.6	1,960	5,100	
2:35	970.9	13.0	41	s.	7.2	2,178	782.2	8.1	0.47	47	5.08	sw.	10.5	2,134	5,500	
						2,250	775.0	7.7	.....	48	5.04	sw.	10.6	2,205	5,660	
						2,500	751.8	6.2	.....	52	4.93	sw.	10.8	2,450	6,220	
						2,750	729.1	4.8	.....	55	4.73	wsw.	11.1	2,694	6,790	
3:10	970.4	14.6	37	s.	7.6	2,861	719.2	4.1	0.59	56	4.59	wsw.	11.2	2,803	7,100	
						3,000	706.9	3.3	.....	57	4.41	wsw.	11.5	2,939	7,880	
						3,250	685.0	1.8	.....	53	3.69	w.	12.0	3,184	9,160	
						3,500	664.0	0.3	.....	49	3.06	w.	12.5	3,429	10,080	
4:00	969.6	14.7	37	s.	7.2	3,615	654.5	−0.4	0.60	48	2.84	w.	12.7	3,541	10,510	Few Cl., w. (?).
						3,750	644.0	−1.0	.....	46	2.59	w.	12.6	3,673	11,010	
						4,000	624.3	−2.2	.....	42	2.14	w.	12.5	3,918	11,940	
						4,250	605.1	−3.3	.....	38	1.76	w.	12.4	4,162	12,860	
4:33	969.2	14.4	38	s.	5.4	4,358	596.5	−3.8	0.48	36	1.60	w.	12.4	4,268	.....	
						4,250	605.1	−3.2	.....	36	1.68	w.	12.6	4,162	12,860	
						4,000	624.3	−2.0	.....	36	1.86	wsw.	13.1	3,918	11,030	
						3,750	644.0	−0.7	.....	36	2.07	wsw.	13.6	3,673	8,640	
4:56	968.9	13.7	39	s.	5.8	3,674	650.3	−0.3	0.55	36	2.15	wsw.	13.7	3,599	8,390	
						3,500	664.0	0.7	.....	38	2.44	wsw.	13.1	3,429	7,810	
						3,250	685.0	2.0	.....	41	2.89	wsw.	12.4	3,184	7,150	
						3,000	706.9	3.4	.....	44	3.43	wsw.	11.6	2,939	6,600	
						2,750	729.1	4.8	.....	46	3.96	sw.	10.8	2,694	6,040	
						2,500	751.8	6.2	.....	49	4.65	sw.	10.0	2,450	5,480	
5:15	968.7	13.2	38	s.	4.0	2,419	759.5	6.6	0.53	50	4.88	sw.	9.7	2,370	5,300	
						2,250	775.0	7.5	.....	48	4.98	sw.	10.2	2,205	4,960	
						2,000	798.9	8.8	.....	46	5.21	sw.	10.9	1,960	4,460	
						1,750	823.5	10.1	.....	43	5.31	ssw.	11.6	1,715	3,960	
						1,500	848.2	11.4	.....	40	5.39	ssw.	12.4	1,470	3,440	
5:32	968.5	12.4	42	s.	4.9	1,414	857.1	11.9	0.11	39	5.43	ssw.	12.6	1,386	3,260	
						1,250	874.0	12.1	.....	35	4.94	ssw.	12.7	1,225	2,910	
5:40	968.4	11.9	45	s.	5.4	1,151	884.2	12.2	−2.14	32	4.55	ssw.	12.7	1,128	2,700	
						1,000	900.8	9.0	.....	35	4.02	ssw.	12.7	980	2,160	
5:41	968.4	11.9	45	s.	4.9	973	903.4	8.4	0.59	35	3.86	s.	12.7	954	2,060	
						750	928.7	9.7	.....	38	4.57	s.	9.3	735	1,270	
						500	956.7	11.2	.....	42	5.59	sse.	5.6	490	370	
5:52	968.3	11.8	44	sse.	4.0	396	968.3	11.8	.....	44	6.09	sse.	4.0	388	.....	Few Cl., sw.

TABLE 8.—*Free-air data from kite flights at Drexel Aerological Station, October, 1916*—Continued.

October 18, 1916.

Surface.						At different heights above sea.										Remarks.
Time.	Pressure.	Temperature.	Relative humidity.	Wind.		Altitude.	Pressure.	Temperature.	$\frac{\Delta t}{100\ m.}$	Humidity.		Wind.		Potential.		
				Dir.	Vel.					Rel.	Vap. pres.	Dir.	Vel.	Gravity.	Electric.	
A. M.	*mb.*	°*C.*	%		*m.p.s.*	*m.*	*mb.*	°*C.*		%	*mb.*		*m.p.s.*	10^5 *ergs.*	*volts.*	
7:24	964.5	5.6	81	sse.	5.8	396	964.5	5.6	.....	81	7.37	sse.	5.8	388	.....	1/10 Cl., wsw.
						500	952.3	7.6	.....	74	7.73	s.	9.1	490	.....	
7:29	964.5	5.8	79	sse.	5.4	742	925.0	12.4	−1.97	57	8.21	ssw.	16.9	728	.....	
						750	924.0	12.4	.....	57	8.21	ssw.	16.9	735	.....	
						1,000	896.5	12.1	.....	55	7.77	ssw.	15.3	980	3,870	
7:40	964.5	6.1	79	sse.	4.9	1,070	889.6	12.0	0.12	55	7.72	ssw.	14.9	1,049	4,350	
7:44	964.5	6.3	77	sse.	4.9	1,237	872.0	13.1	−0.66	54	8.14	ssw.	14.0	1,213	5,500	
						1,250	865.0	13.0	.....	54	8.09	ssw.	14.0	1,225	5,550	
						1,500	844.4	11.9	.....	50	6.97	ssw.	14.2	1,470	6,550	
						1,750	819.4	10.7	.....	45	5.79	sw.	14.4	1,715	7,550	
						2,000	795.6	9.6	.....	41	4.90	sw.	14.6	1,960	8,670	
8:12	964.5	7.0	74	s.	4.5	2,188	778.0	8.7	0.46	38	4.28	sw.	14.7	2,144	9,500	
						2,250	772.0	8.4	.....	38	4.19	sw.	14.7	2,205	9,780	
						2,500	748.4	6.7	.....	37	3.63	sw.	14.8	2,450	10,910	
						2,750	725.8	5.7	.....	36	3.30	sw.	14.8	2,694	12,040	
						3,000	704.1	4.3	.....	35	2.91	ssw.	14.9	2,939	13,290	
						3,250	683.2	3.0	.....	34	2.58	ssw.	15.0	3,184	14,660	
8:55	964.5	9.3	66	s.	5.8	3,393	671.5	2.2	0.54	33	2.36	ssw.	15.0	3,324	15,440	3/10 Cl., sw.
						3,500	662.5	1.3	.....	33	2.21	ssw.	14.9	3,429	16,000	
						3,750	642.3	− 0.7	.....	33	1.90	ssw.	14.7	3,673	16,140	
						4,000	622.4	− 2.7	.....	33	1.61	ssw.	14.5	3,918	.....	
10:02	964.2	11.3	59	sse.	4.5	4,031	619.7	− 3.0	0.69	33	1.57	ssw.	14.5	3,948	.....	3/10 Cl., sw.
						4,000	622.4	− 2.8	.....	33	1.60	ssw.	14.6	3,918	.....	
						3,750	642.3	− 1.4	.....	34	1.85	ssw.	15.0	3,673	15,720	
						3,500	662.5	0.0	.....	35	2.14	ssw.	15.5	3,429	14,460	
						3,250	683.2	1.4	.....	36	2.43	ssw.	16.0	3,184	13,200	
						3,000	704.1	2.8	.....	37	2.76	ssw.	16.5	2,939	11,940	
10:50	963.6	13.8	55	s.	4.9	2,873	715.0	3.5	0.66	38	2.98	ssw.	16.7	2,815	11,300	
						2,750	725.8	4.3	.....	38	3.16	ssw.	16.0	2,694	10,670	
						2,500	748.4	6.6	.....	38	3.70	ssw.	14.4	2,450	9,390	
						2,250	772.0	7.6	.....	39	4.07	ssw.	13.7	2,205	8,120	
						2,000	795.6	9.3	.....	39	4.57	ssw.	12.5	1,960	6,950	
11:16	963.4	15.3	51	s.	3.8	1,890	805.8	10.0	+0.34	39	4.79	ssw.	12.0	1,852	6,450	
						1,750	819.4	9.5	.....	48	5.70	ssw.	12.4	1,715	5,810	
11:20	963.4	15.3	51	s.	3.8	1,715	822.9	9.4	0.58	50	5.90	ssw.	12.5	1,681	5,660	
						1,500	844.4	10.6	.....	54	6.90	ssw.	12.9	1,470	4,760	
						1,250	865.0	12.1	.....	59	8.33	ssw.	13.5	1,225	3,770	
11:31	963.3	15.6	51	sse.	3.6	1,232	872.0	12.2	0.00	59	8.38	ssw.	13.5	1,208	3,700	
11:40	963.2	16.1	50	s.	4.9	1,018	894.4	12.2	−2.04	73	10.37	s.	7.1	989	.....	
						1,000	896.5	11.8	.....	73	10.10	s.	7.1	980	.....	
11:42	963.2	16.2	50	s.	4.9	915	905.6	10.1	1.14	74	9.15	s.	7.1	897	.....	
						750	923.8	12.0	.....	67	9.40	s.	6.3	735	.....	
						500	951.5	14.8	.....	56	9.42	ssw.	5.0	490	.....	
11:53	963.1	16.0	51	ssw.	4.5	396	963.1	16.0	.....	51	9.27	ssw.	4.5	388	.....	2/10 Cl., sw.

October 19, 1916.

P. M.																
12:52	965.2	−2.0	83	nnw.	10.3	396	965.2	−2.0	.....	83	4.29	nnw.	10.3	388	.....	10/10 St., nnw.
						500	953.6	−2.7	.....	83	4.05	nnw.	12.8	490	0	Base of St. about 800 m.
						750	923.7	−4.3	.....	84	3.58	nnw.	18.7	735	0	
						1,000	894.3	−5.9	.....	85	3.15	nnw.	24.7	980	0	
12:56	965.2	−2.0	83	nnw.	8.9	1,078	885.2	−6.4	0.64	85	3.03	nnw.	26.5	1,057	0	
						1,250	866.4	−6.4	.....	85	3.03	nnw.	25.1	1,225	0	
						1,500	839.3	−6.5	.....	86	3.04	n.	23.0	1,470	0	
						1,750	812.6	−6.5	.....	87	3.07	n.	20.9	1,715	680	
1:15	965.2	−2.0	83	nnw.	9.4	1,840	803.0	−6.5	−0.02	87	3.07	n.	20.2	1,803	1,390	10/10 St., nnw
						1,750	812.6	−6.5	.....	87	3.07	n.	20.2	1,715	1,240	
						1,500	839.3	−6.7	.....	87	3.02	n.	20.1	1,470	830	
						1,250	866.4	−6.8	.....	86	2.96	nnw.	20.0	1,225	420	
						1,000	894.3	−6.9	.....	86	2.93	nnw.	19.9	980	10	
1:58	965.2	−2.0	79	nnw.	8.0	992	894.8	−6.9	0.70	86	2.93	nnw.	19.9	973	0	
						750	922.8	−5.2	.....	87	3.43	nnw.	20.7	735	0	
2:15	965.4	−2.2	81	nnw.	7.6	676	931.8	−4.7	0.89	87	3.58	nnw.	21.0	663	0	
						500	952.6	−3.1	.....	83	3.91	nnw.	13.1	490	0	
2:24	965.5	−2.2	81	nnw.	8.5	396	965.5	−2.2	.....	81	4.12	nnw.	8.5	388	.....	10/10 St., nnw.

October 20, 1916 (No. 1).

A. M.																
8:20	967.8	−5.4	70	nnw.	7.6	396	967.8	−5.4	.....	70	2.72	nnw.	7.6	388	.....	Cloudless.
						500	955.0	−6.2	.....	72	2.61	nnw.	12.4	490	0	
8:30	967.9	−5.2	73	nnw.	7.6	753	924.7	−8.1	0.76	77	2.36	nnw.	24.0	738	0	
						1,000	896.3	−5.4	.....	59	2.29	nnw.	23.1	980	3,320	
8:58	968.2	−4.6	67	nnw.	9.4	1,104	884.5	−4.3	−1.08	52	2.22	nnw.	22.7	1,082	4,400	
						1,250	868.5	−4.5	.....	45	1.89	nnw.	23.7	1,225	5,130	
						1,500	841.4	−4.9	.....	34	1.38	nnw.	25.3	1,470	6,430	
9:25	968.2	−4.2	65	nnw.	10.3	1,541	836.8	−5.0	1.60	32	1.28	nnw.	25.6	1,510	6,900	Cloudless.
						1,750	814.8	−6.2	.....	28	1.01	nnw.	23.6	1,715	8,670	
9:51	968.2	−3.6	61	nnw.	11.2	1,869	802.4	−6.9	0.56	26	0.89	nnw.	22.5	1,832	.....	
						1,750	814.8	−6.2	.....	28	1.01	nnw.	22.6	1,715	9,140	
						1,500	841.4	−4.9	.....	31	1.26	nnw.	22.7	1,470	7,430	
10:32	968.4	−3.2	61	nnw.	12.1	1,379	854.1	−4.2	−1.20	33	1.42	nnw.	22.8	1,352	6,580	Few St.Cu., nnw.
						1,250	868.5	−5.7	.....	42	1.59	nnw.	21.4	1,225	5,930	
						1,000	896.3	−8.8	.....	59	1.71	nnw.	18.5	980	3,920	
10:45	968.5	−3.2	64	nnw.	9.8	979	898.9	−9.0	1.01	60	1.70	nnw.	18.3	960	3,660	
						750	925.8	−6.7	.....	60	2.08	nnw.	14.6	735	850	
						500	956.0	−4.2	.....	59	2.54	nnw.	10.6	490	.....	
11:01	968.6	−3.1	59	nnw.	8.9	396	968.6	−3.1	.....	59	2.78	nnw.	8.9	388	.....	Few St.Cu., nnw.

TABLE 8.—*Free-air data from kite flights at Drexel Aerological Station, October, 1916*—Continued.

October 20, 1916 (No. 2).

Surface.						At different heights above sea.										Remarks.
Time.	Pressure.	Temperature.	Relative humidity.	Wind.		Altitude.	Pressure.	Temperature.	$\frac{\Delta t}{100\,m.}$	Humidity.		Wind.		Potential.		
				Dir.	Vel.					Rel.	Vap. pres.	Dir.	Vel.	Gravity.	Electric.	
P. M.	*mb.*	°*C.*	%		*m.p.s.*	*m.*	*mb.*	°*C.*		%	*mb.*		*m.p.s.*	10^5 *ergs.*	*volts.*	
1:35	968.9	−1.0	51	nw.	7.6	396	968.9	−1.0		51	2.87	nw.	7.6	388		Cloudless.
						500	956.2	−2.3		54	2.72	nw.	9.1	490		
1:49	968.9	−0.8	55	nnw.	7.2	734	928.5	−5.1	1.21	61	2.43	nnw.	12.5	720	2,400	
						750	926.8	−5.2		61	2.40	nnw.	12.5	735	2,580	
						1,000	897.3	−6.8		64	2.20	nnw.	12.2	980	5,340	
1:56	968.9	−0.7	58	nw.	8.9	1,149	880.3	−7.8	0.65	65	2.05	nnw.	12.0	1,126	6,980	Few Cu., nnw
						1,250	869.0	−6.9		56	1.91	nnw.	16.1	1,225	7,950	
2:02	968.9	−0.7	60	nnw.	6.3	1,338	859.5	−6.2	−0.85	48	1.74	nnw.	19.7	1,312	8,110	
						1,500	841.6	−6.2		40	1.45	nnw.	19.3	1,470	9,020	
						1,750	815.5	−6.2		27	0.98	nnw.	18.8	1,715	10,260	
2:12	968.9	−0.6	57	nw.	8.0	1,778	812.4	−6.2	0.00	26	0.94	nnw.	18.7	1,743	10,500	
						2,000	789.7	−7.4		23	0.75	nnw.	19.3	1,960	12,390	
						2,250	764.5	−8.8		21	0.61	nnw.	19.9	2,205	14,520	
2:27	968.9	−0.5	57	nw.	7.6	2,295	760.4	−9.0	0.52	20	0.57	nnw.	20.0	2,249	14,900	
						2,250	764.5	−8.8		20	0.58	nnw.	19.9	2,205	14,590	
						2,000	789.7	−7.5		20	0.65	nnw.	19.2	1,960	12,870	
						1,750	815.5	−6.2		20	0.72	nnw.	18.6	1,715	10,980	
2:51	968.9	−0.2	56	nw.	7.6	1,515	840.6	−5.0	−0.31	20	0.80	nnw.	18.0	1,485	8,710	Cloudless.
						1,500	842.0	−5.0		21	0.84	nnw.	17.9	1,470	8,560	
						1,250	869.2	−5.1		33	1.31	nnw.	17.0	1,225	6,160	
3:01	968.9	−0.1	55	nnw.	7.2	1,196	875.5	−5.1	−0.87	36	1.43	nnw.	16.8	1,172	5,650	
3:02	968.9	−0.1	54	nnw.	7.2	1,069	889.9	−6.2	0.72	41	1.48	nw.	16.8	1,048	4,440	
						1,000	897.3	−5.7		46	1.74	nw.	15.7	980	3,790	
3:10	968.9	0.0	53	nw.	7.2	791	922.0	−4.2	1.06	60	2.58	nw.	12.2	776	1,800	
						750	926.8	−3.8		60	2.66	nw.	11.8	735		
						500	956.2	−1.1		58	3.23	nnw.	9.5	490		
3:15	968.9	0.0	57	nnw.	8.5	396	968.9	0.0		57	3.48	nnw	8.5	388		Cloudless.

October 21, 1916.

A. M.																
8:17	968.2	−0.8	80	wsw.	4.0	396	968.2	−0.8		80	4.57	wsw.	4.0	388		Cloudless.
						500	955.6	1.4		69	4.66	wsw.	5.2	490	0	
8:28	968.2	1.0	78	wsw.	4.0	729	929.4	0.1	−2.07	45	4.24	w.	7.7	715	0	
						750	926.6	5.9		46	4.27	w.	7.7	735	90	
						1,000	898.0	3.9		52	4.20	w.	8.2	980	1,210	
						1,250	870.6	1.8		59	4.11	wnw.	8.7	1,225	2,330	Few Ci., wnw.
						1,500	845.0	−0.2		66	3.97	wnw.	9.1	1,470	3,450	
9:00	968.2	3.6	70	wsw.	2.7	1,645	830.4	−1.5	0.82	70	3.77	wnw.	9.4	1,612	4,100	
						1,750	819.7	−1.4		66	3.59	wnw.	10.0	1,715	4,430	
						2,000	794.5	−1.0		56	3.15	wnw.	11.3	1,960	5,330	
						2,250	770.6	−0.7		46	2.65	wnw.	12.6	2,205	6,110	Few Ci., wnw.
9:25	968.1	3.9	72	sw.	2.7	2,430	753.1	−0.4	−0.14	39	2.30	wnw.	13.6	2,381	6,900	
						2,500	746.6	−0.6		37	2.15	wnw.	13.6	2,450	7,210	
						2,750	723.7	−1.4		32	1.74	wnw	13.5	2,694	8,300	
9:38	968.0	5.1	67	sw.	2.2	2,773	721.8	−1.5	0.32	31	1.67	wnw	13.5	2,717	8,400	
						3,000	701.7	−1.4		29	1.31	nw.	15.5	2,939	8,940	
9:55	967.9	5.2	68	sw.	2.7	3,107	692.4	−1.3	−0.06	21	1.15	nw.	16.5	3,044	9,190	
						3,250	680.0	−2.1		32	1.64	nw.	17.4	3,184	9,780	
						3,500	659.0	−3.5		52	2.37	nw.	18.9	3,429	11,010	
10:27	967.6	6.0	68	sw.	2.7	3,602	650.9	−4.1	0.54	60	2.60	nw.	19.5	3,528	13,000	
						3,500	658.6	−3.6		58	2.62	nw.	19.0	3,429	12,260	
						3,250	679.0	−2.3		55	2.77	nw.	17.9	3,184	10,430	
						3,000	700.1	−1.1		51	2.84	wnw.	16.7	2,939	8,610	
11:12	967.1	7.0	64	ssw.	3.6	2,859	712.9	−0.4	0.02	49	2.90	wnw.	16.1	2,801	7,580	
						2,750	722.1	−0.4		45	2.66	wnw.	15.4	2,694	6,920	
						2,500	745.5	−0.5		35	2.05	wnw.	13.8	2,450	5,870	
11:25	967.1	7.4	62	ssw.	3.6	2,406	754.6	−0.5	−0.21	31	1.82	wnw.	13.2	2,358	5,480	
						2,250	769.7	−0.2		39	2.34	wnw.	12.7	2,205	4,830	Few Ci., wnw.; few Ci. Cu., wnw.
						2,000	793.9	−0.3		51	3.18	wnw.	11.9	1,960	3,820	
						1,750	819.0	0.9		63	4.11	wnw.	11.1	1,715	2,820	
11:42	967.0	7.8	61	ssw.	4.0	1,732	820.9	0.9	0.55	64	4.17	wnw.	11.0	1,698	2,750	
						1,500	844.6	2.2		37	2.65	wnw.	10.5	1,470	1,940	
11:50	967.0	7.6	64	ssw.	3.6	1,276	868.4	3.4	0.88	10	0.78	wsw.	10.0	1,251	1,560	
						1,250	870.6	3.6		12	0.95	wsw.	9.9	1,225	1,400	
						1,000	898.0	5.8		35	3.23	w.	9.2	980	420	
P. M.																
12:05	966.8	8.3	62	ssw.	3.6	820	918.1	7.4	0.55	51	5.25	w.	8.6	804	0	
						750	925.9	7.0		51	5.11	w.	8.6	735	0	
12:06	966.8	8.3	62	ssw.	3.6	620	940.8	6.3	0.85	52	4.97	w.	8.6	608	0	
						500	954.4	7.3		58	5.93	sw.	5.7	490	0	
12:09	966.8	8.2	63	ssw.	3.1	396	966.8	8.2		63	7.14	ssw.	3.1	388		Few Ci., wnw.

October 22, 1916.

A. M.																
7:55	965.9	5.8	84	ne.	4.5	396	965.9	5.8		84	7.74	ne.	4.5	388		6/10 A.Cu., w.; 3/10 St.Cu., w.
						500	953.8	7.4		72	7.42	ne.	7.5	490	0	
7:57	965.9	5.8	82	ne.	4.5	708	930.1	10.5	−1.51	49	6.22	ne.	13.6	694	0	
						750	925.4	10.5		47	5.97	ne.	12.8	735	0	
						1,000	898.0	10.4		35	4.41	ne.	8.3	980	360	
8:09	965.9	6.2	81	ne.	4.0	1,014	896.4	10.4	0.03	34	4.29	ne.	8.0	994	380	
						1,250	871.9	8.5		37	4.11	ene.	6.8	1,225	740	3/10 A.Cu., w.; 7/10 St.Cu., w.
						1,500	845.9	6.4		40	3.84	e.	6.0	1,470	1,550	1/10 Ci.Cu., w.; 3/10 A.Cu., w.;
9:07	966.2	8.8	71	ne.	5.4	1,610	834.4	5.5	0.82	41	3.70	e.	5.5	1,578	1,870	4/10 St.Cu., w.
						1,750	820.3	4.9		42	4.24	e.	6.5	1,715	2,280	
						2,000	795.2	3.7		43	3.42	se.	8.2	1,960	3,020	3/10 A.Cu., w.
9:37	966.4	9.7	66	ne.	5.8	2,187	777.3	2.9	0.45	44	3.31	sse.	9.5	2,143	3,570	
						2,250	771.5	2.9		44	3.31	sse.	9.5	2,205	3,751	
9:40	966.4	9.7	66	ne.	5.8	2,447	753.1	3.0	−0.04	43	3.26	sse.	9.5	2,398	4,330	
						2,500	748.0	2.6		43	3.17	sse.	9.7	2,450	4,490	
						2,750	725.0	0.5		44	2.79	s.	10.9	2,694	5,220	
						3,000	702.4	−1.6		45	2.41	ssw.	12.1	2,939	5,960	
						3,250	680.5	−3.7		46	2.06	sw.	13.2	3,184	6,690	
						3,500	659.4	−5.8		46	1.72	wsw.	14.4	3,429	7,430	
9:50	966.4	9.2	67	ne.	6.3	3,693	643.3	−7.4	0.90	47	1.53	wsw.	15.3	3,617	8,000	
						3,500	659.4	−5.7		42	1.59	wsw.	16.8	3,429	7,370	

TABLE 8.—*Free-air data from kite flights at Drexel Aerological Station, October, 1916*—Continued.

October 22, 1916—Continued.

Surface.						At different heights above sea.										Remarks.
Time.	Pressure.	Temperature.	Relative humidity.	Wind.		Altitude.	Pressure.	Temperature.	$\frac{\Delta t}{100m.}$	Humidity.		Wind.		Potential.		
				Dir.	Vel.					Rel.	Vap. pres.	Dir.	Vel.	Gravity.	Electric.	
A. M.	*mb.*	°*C.*	%		*m.p.s.*	*m.*	*mb.*	°*C.*		%	*mb.*		*m.p.s.*	10^5 *ergs.*	*volts.*	
						3,250	680.5	−3.4	.....	37	1.70	sw.	18.8	3,184	6,550	
						3,000	702.4	−1.2	.....	31	1.71	ssw.	20.8	2,939	5,730	7/10 A.Cu., w.
10:35	966.7	12.3	56	ne.	8.0	2,843	716.2	0.2	0.72	27	1.67	ssw.	22.0	2,786	5,210	
						2,750	725.0	0.9	.....	30	1.96	ssw.	21.3	2,694	4,900	
						2,500	748.0	2.7	.....	39	2.89	s.	19.3	2,450	4,020	
11:08	966.9	13.2	53	ene.	7.6	2,263	769.7	4.4	−0.48	47	3.93	s.	17.4	2,218	3,460	
						2,250	771.0	4.3	.....	47	3.91	s.	17.1	2,205	3,430	
						2,000	795.2	3.1	.....	45	3.43	sse.	12.3	1,960	3,010	
11:16	967.0	13.9	52	ene.	6.3	1,933	801.8	2.8	0.35	45	3.36	sse.	11.0	1,895	2,900	
						1,750	820.3	3.4	.....	46	3.59	sse.	10.9	1,715	2,590	7/10 A.Cu., w.
						1,500	845.9	4.3	.....	48	3.99	e.	10.8	1,470	2,340	
11:38	967.1	13.3	51	ene.	5.8	1,367	859.7	4.8	−0.05	49	4.21	e.	10.8	1,340	2,290	
						1,250	871.9	4.7	.....	52	4.44	ene.	11.4	1,225	2,240	
11:48	967.1	13.1	52	ene.	8.0	1,157	882.0	4.7	0.87	55	4.70	ene.	11.8	1,134	2,200	
						1,000	899.0	6.1	.....	58	5.46	ene.	11.9	980	1,550	
11:58	967.2	13.5	51	ene.	7.2	765	925.3	8.1	1.49	62	6.70	ene.	12.0	750	565	
						750	927.0	8.3	.....	61	6.68	ene.	11.4	735	.....	
						500	955.3	12.0	.....	53	7.44	ene.	8.2	490	.....	
P. M.																
12:10	967.2	13.6	49	ene.	6.7	396	967.2	13.6	.....	49	7.63	ene.	6.7	388	.....	3/10 Cl., w.; 3/10 A.Cu., w.
October 23, 1916.																
A. M.																
8:19	978.8	2.3	77	ne.	7.6	396	978.8	2.3	.....	77	5.55	ne.	7.6	388	.....	10/10 St., se. Sl. began, 8:12a. m.
						500	966.0	1.4	.....	81	5.48	ne.	9.7	490	0	
						750	936.5	−0.8	.....	91	5.20	ne.	14.6	735	0	
8:28	978.9	2.4	74	ne.	7.2	832	927.1	−1.5	0.13	94	5.07	ne.	16.2	816	0	
						1,000	908.0	1.3	.....	87	5.84	ene.	15.3	980	0	
8:34	978.9	2.4	77	ne.	8.0	1,102	896.6	3.0	−1.67	83	6.29	ene.	14.7	1,080	0	
8:40	979.0	2.4	77	ne.	5.8	1,234	882.2	2.5	0.38	85	6.21	ene.	13.2	1,210	0	
						1,250	880.5	2.4	.....	85	6.17	ene.	13.1	1,225	30	
						1,500	853.3	1.4	.....	90	6.08	ese.	10.9	1,470	470	Sl. ended. 8:50 a. m.
8:58	979.1	2.4	74	ne.	7.2	1,754	827.0	0.4	0.40	95	5.98	se.	8.8	1,719	1,200	Alt. of St. base about 1,700 m.
						2,000	802.4	0.2	.....	80	5.52	se.	5.0	1,960	6,272	9/10 St., se.; 1/10 St. Cu., ne.
10:17	979.8	2.4	77	ne.	7.2	2,142	788.4	0.1	0.36	86	5.29	se.	2.8	2,099	.....	St.Cu. at about 800 m.
						2,000	803.0	0.0	.....	88	5.38	se.	5.2	1,960	4,570	7/10 St., se.; 3/10 St.Cu., ne.
						1,750	828.2	−0.1	.....	91	5.51	ese.	9.5	1,715	3,120	
10:56	980.1	2.8	75	ne.	8.5	1,536	850.5	−0.2	0.56	93	5.59	ese.	13.2	1,506	2,400	Alt. of St. base about 1,650 m.
						1,500	854.1	0.0	.....	91	5.56	ese.	13.0	1,470	2,330	
11:00	980.1	2.7	75	ne.	6.7	1,285	877.4	1.2	−0.16	79	5.26	e.	11.8	1,260	1,940	
						1,250	881.0	1.1	.....	88	5.16	e.	11.9	1,225	1,880	
11:08	980.1	2.6	75	ne.	8.5	1,095	898.2	0.9	−0.96	75	4.89	ene.	12.3	1,073	1,500	
						1,000	909.0	0.0	.....	76	4.64	ene.	12.6	980	1,160	
11:11	980.1	2.7	75	ne.	7.6	815	930.3	−1.8	1.05	78	4.10	ne.	13.3	799	500	
						759	938.0	−1.1	.....	78	4.34	ne.	12.4	735	270	
						500	967.4	1.5	.....	76	5.18	ne.	8.7	490	0	
11:23	980.1	2.6	75	ne.	7.2	396	980.1	2.6	.....	75	5.53	ne.	7.2	388	.....	10/10 St., se.; few St.Cu., ne.
October 24, 1916.																
P. M.																
4:18	967.9	2.6	97	nne.	4.5	396	967.9	2.6	.....	97	7.15	nne.	4.5	388	.....	10/10 St., nne.; light rain.
						500	955.4	2.0	.....	97	6.85	nne.	4.6	490	.....	Alt. of St. about 450 m.
						750	926.0	0.5	.....	96	6.08	ne.	4.8	735	.....	
4:45	967.9	2.3	95	nnw.	3.1	981	900.0	−0.9	0.60	95	5.39	ne.	5.0	962	1,300	
						1,000	897.9	−0.7	.....	95	5.47	ne.	4.7	980	.....	
5:11	967.8	2.2	96	nne.	4.0	1,080	888.8	−0.1	−0.44	94	5.70	ene.	3.2	1,059	.....	10/10 St., n.
						1,000	897.9	−0.2	.....	95	5.71	ene.	5.3	980	.....	
5:25	967.8	2.2	95	nne.	6.3	838	916.1	−0.3	0.57	97	5.78	ne.	9.5	822	1,390	Alt. of St. base about 450 m.; light rain.
						750	926.0	0.2	.....	97	6.01	ne.	8.3	735	.....	
						500	955.4	1.6	.....	95	6.52	n.	5.0	490	.....	
5:34	967.7	2.2	95	n.	3.6	396	967.7	2.2	.....	95	6.80	n.	3.6	388	.....	10/10 St., n.
October 25, 1916 (No. 1).																
A. M.																
7:54	972.9	2.4	83	nw.	6.3	396	972.9	2.4	.....	83	6.03	nw.	6.3	388	.....	Cloudless.
						500	960.5	2.0	.....	79	5.58	nw.	9.2	490	0	
8:00	973.0	2.5	82	nw.	6.3	710	935.9	1.2	0.38	72	4.80	nnw.	15.0	696	0	
						750	931.8	0.9	.....	73	4.76	nnw.	14.9	735	0	
						1,000	903.0	−1.8	.....	78	4.10	nnw.	14.5	980	870	
						1,250	875.4	−1.7	.....	83	4.05	nnw.	14.1	1,225	1,840	
8:20	973.4	3.1	80	nw.	5.8	1,281	871.9	−2.9	0.72	84	4.03	nnw.	14.1	1,256	1,960	
						1,500	848.8	−3.0	.....	67	3.18	nnw.	15.5	1,470	2,680	
						1,750	822.7	−3.1	.....	47	2.21	nnw.	17.1	1,715	3,420	
8:52	974.1	3.8	77	nw.	8.0	1,881	809.4	−3.2	0.05	37	1.73	nnw.	18.0	1,844	3,820	Cloudless.
						2,000	797.2	−3.7	.....	34	1.52	nnw.	18.6	1,960	4,180	
						2,250	772.6	−4.7	.....	28	1.15	nw.	19.8	2,205	4,950	1/10 St.Cu., nnw.
						2,500	748.7	−5.7	.....	23	0.87	nw.	21.1	2,450	6,100	
9:35	974.5	4.5	72	nw.	8.5	2,543	744.5	−5.9	0.44	22	0.82	nw.	21.2	2,492	6,300	
						2,500	748.7	−3.8	.....	23	1.02	nw.	21.1	2,450	6,070	
						2,250	772.6	−3.6	.....	29	1.31	nw.	20.4	2,205	4,760	
						2,000	797.2	−3.3	.....	35	1.62	nnw.	19.6	1,960	4,140	
10:11	974.8	5.2	71	nw.	7.2	1,778	820.1	−2.2	0.00	40	2.04	nnw.	19.0	1,743	3,610	
						1,750	822.7	−2.2	.....	42	2.14	nnw.	18.6	1,715	3,540	
						1,500	849.1	−2.2	.....	50	3.00	nnw.	15.2	1,470	2,860	
10:30	974.9	5.6	69	nw.	7.2	1,337	867.2	−2.2	0.62	70	3.56	nnw.	13.0	1,311	2,400	2/10 St.Cu., nnw.
						1,250	876.7	−1.7	.....	71	3.76	nnw.	12.9	1,225	2,020	
						1,000	905.0	−0.2	.....	74	4.45	nnw.	12.6	980	980	
						750	933.8	1.4	.....	78	5.27	nnw.	12.3	735	50	
10:48	974.9	5.6	69	nw.	8.9	736	935.9	1.5	1.44	78	5.31	nnw.	12.3	722	0	5/10 St.Cu., nnw.
						500	962.8	4.9	.....	70	6.06	nw.	9.0	490	0	
10:54	975.0	6.4	66	nw.	7.6	396	975.0	6.4	.....	66	6.34	nw.	7.6	388	.....	

TABLE 8.—*Free-air data from kite flights at Drexel Aerological Station, October, 1916*—Continued.

October 25, 1916 (No. 2).

Surface.						At different heights above sea.										Remarks.
Time.	Pressure.	Temperature.	Relative humidity.	Wind.		Altitude.	Pressure.	Temperature.	$\frac{\Delta t}{100\,m.}$	Humidity.		Wind.		Potential.		
				Dir.	Vel.					Rel.	Vap. pres.	Dir.	Vel.	Gravity.	Electric.	
A. M.	*mb.*	°*C.*	%		*m. p. s.*	*m.*	*mb.*	°*C.*		%	*mb.*		*m. p. s.*	10^5 *ergs.*	*volts.*	
11:31	974.8	6.0	65	nw.	7.6	396	974.8	6.0	.....	65	6.08	nw.	7.6	388	.....	6/10 St.Cu., nw.
						500	962.2	4.3	.....	68	5.65	nw.	9.1	490	0	
11:39	974.8	6.4	63	nw.	9.4	730	935.4	0.5	1.65	76	4.81	nw.	12.3	716	0	
						750	933.0	0.3	.....	77	4.80	nw.	12.3	735	140	
						1,000	904.0	−2.1	.....	86	4.41	nw.	12.0	980	1,785	
11:46	974.8	7.1	63	nw.	7.6	1,009	903.2	−2.2	0.97	86	4.38	nw.	12.0	989	1,800	
						1,250	876.0	−2.3	.....	63	3.18	nw.	14.4	1,225	2,410	4/10 St.Cu., nw.
						1,500	849.0	−2.4	.....	39	1.95	nw.	16.9	1,470	3,060	
P. M.																
12:05	974.6	6.5	62	nw.	7.2	1,589	839.5	−2.4	0.03	30	1.50	nw.	17.8	1,557	3,450	
						1,750	822.2	−3.1	.....	29	1.37	nw.	17.7	1,715	4,160	
						2,000	796.4	−4.3	.....	27	1.15	nw.	17.6	1,960	5,090	
						2,250	771.6	−5.5	.....	25	0.96	nw.	17.4	2,205	5,480	
						2,500	747.5	−6.6	.....	23	0.80	nw.	17.3	2,450	5,870	
12:29	974.4	7.0	62	nw.	7.2	2,519	746.0	−6.7	0.46	23	0.80	nw.	17.3	2,468	5,900	2/10 St.Cu., nw.
						2,750	724.0	−7.1	.....	18	0.60	nw.	18.9	2,694	6,530	
						3,000	701.3	−7.5	.....	13	0.42	wnw.	20.5	2,939	7,210	
1:02	974.0	7.4	59	nw.	6.3	3,217	681.8	−7.9	0.18	9	0.28	wnw.	22.0	3,152	7,800	
						3,000	701.3	−7.5	.....	8	0.26	wnw.	21.5	2,939	6,790	
						2,750	724.0	−7.0	.....	8	0.27	wnw.	20.9	2,694	5,700	
1:24	973.8	7.9	56	nw.	6.3	2,500	747.5	−6.5	0.44	7	0.25	wnw.	20.3	2,450	5,040	1/10 St.Cu., nw.
						2,250	771.6	−5.4	.....	11	0.43	wnw.	19.3	2,205	4,380	
						2,000	796.4	−4.3	.....	14	0.60	nw.	18.4	1,960	3,740	
						1,750	822.2	−3.2	.....	18	0.84	nw.	17.4	1,715	3,240	
1:43	973.7	7.8	54	nw.	8.9	1,529	845.9	−2.2	0.15	21	1.07	nw.	16.5	1,499	2,800	1/10 Ci.St., wnw.; few St.Cu., nw.
						1,500	849.0	−2.2	.....	23	1.17	nw.	16.3	1,470	2,690	
						1,250	876.0	−1.8	.....	41	2.16	wnw.	14.8	1,225	1,780	
1:53	973.6	8.1	55	wnw.	7.6	1,206	880.8	−1.7	1.04	44	2.33	wnw.	14.5	1,182	1,620	
						1,000	904.0	0.4	.....	53	3.33	wnw.	13.2	980	1,000	
						750	932.5	3.0	.....	64	4.85	wnw.	11.6	735	85	
2:04	973.6	8.8	54	wnw.	6.3	724	935.4	3.3	1.56	65	5.03	wnw.	11.4	710	0	
						500	961.2	6.8	.....	55	5.43	wnw.	9.1	490	0	
2:11	973.5	8.4	50	wnw.	8.0	396	973.5	8.4	.....	50	5.51	wnw.	8.0	388	.....	2/10 Ci.St., wnw.; few St.Cu., nw.

October 25, 1916 (No. 3).

P. M.																
2:44	973.4	8.2	49	wnw.	6.7	396	973.4	8.2	.....	49	5.33	wnw.	6.7	388	.....	2/10 St., wnw.; few St. Cu., nw.
						500	961.0	6.7	.....	51	5.00	wnw.	7.5	490	0	22°-halo began 2:45 p. m.
2:55	973.3	8.6	48	nw.	6.7	660	942.5	4.5	1.40	55	4.63	wnw.	8.8	647	0	
						750	932.3	4.0	.....	52	4.23	wnw.	9.5	735	310	6/10 Ci.St., wnw.
						1,000	904.0	2.5	.....	44	3.22	wnw.	11.6	980	1,170	
						1,250	876.1	1.0	.....	35	2.30	nw.	13.6	1,225	2,080	8/10 Ci.St., wnw.
3:16	973.2	9.0	46	nw.	6.7	1,437	856.1	−0.1	0.59	29	1.76	nw.	15.1	1,409	2,800	Halo ended 3:15 p. m.
						1,500	849.0	−0.4	.....	28	1.65	nw.	15.2	1,470	2,930	
						1,750	822.6	−1.8	.....	24	1.26	nw.	15.5	1,715	3,470	
						2,000	797.2	−3.1	.....	21	0.99	wnw.	15.8	1,960	4,090	
						2,250	772.5	−4.4	.....	18	0.76	wnw.	16.1	2,205	4,860	
3:41	973.1	8.4	49	nnw.	5.8	2,360	761.9	−5.0	0.53	16	0.64	wnw.	16.2	2,313	5,200	
						2,500	748.3	−5.4	.....	15	0.58	wnw.	16.8	2,450	5,500	
						2,750	724.9	−6.2	.....	12	0.43	wnw.	17.9	2,694	6,050	
4:02	973.0	8.0	51	nw.	4.5	2,989	702.9	−6.9	0.30	10	0.34	wnw.	19.0	2,928	6,580	9/10 Ci.St., wnw.
						3,000	701.6	−6.9	.....	10	0.34	wnw.	19.1	2,939	6,600	
4:17	973.0	7.8	51	nw.	3.1	3,148	688.5	−6.8	0.06	9	0.31	wnw.	20.5	3,084	6,960	
4:30	973.0	7.7	55	wnw.	3.6	3,246	680.1	−7.8	0.93	18	0.57	wnw.	19.8	3,180	7,200	
						3,000	701.6	−5.7	.....	31	1.17	wnw.	19.4	2,939	6,170	
4:46	973.0	7.2	55	wnw.	6.3	2,912	710.1	−5.0	−0.28	35	1.40	wnw.	19.2	2,853	5,810	
						2,750	724.9	−5.5	.....	30	1.15	wnw.	18.5	2,694	5,130	
4:50	973.0	7.1	55	wnw.	5.4	2,626	736.6	−5.8	0.43	20	0.98	wnw.	18.0	2,673	4,610	
						2,500	748.3	−5.3	.....	24	0.94	wnw.	17.5	2,450	4,090	
						2,250	772.5	−4.2	.....	21	0.90	wnw.	16.4	2,205	3,310	
5:07	973.0	6.8	59	wnw.	2.7	2,005	796.8	−3.1	0.62	18	0.85	wnw.	15.3	1,965	2,600	
						1,750	822.6	−1.5	.....	18	0.97	nw.	14.6	1,715	2,200	
5:20	973.0	6.6	61	w.	2.7	1,508	848.2	0.0	0.61	18	1.10	nw.	14.0	1,478	1,830	3/10 Ci.St., wnw.; 6/10 A.St., wnw.
						1,500	849.0	0.0	.....	18	1.10	nw.	14.0	1,470	1,810	
						1,250	875.8	1.6	.....	28	1.92	nw.	12.8	1,225	1,220	
						1,000	903.4	3.1	.....	37	2.82	wnw.	11.6	980	610	
5:42	973.0	6.4	61	wnw.	3.1	755	931.2	4.6	0.45	46	3.90	wnw.	10.4	740	0	
						500	960.5	5.7	.....	58	5.31	w.	5.6	490	0	
5:49	973.0	6.2	63	w.	3.6	396	973.0	6.2	.....	63	5.97	w.	3.6	388	.....	1/10 Ci.St., wnw.; 8/10 A.St., wnw.

October 25, 1916 (No. 4).

P. M.																
8:07	972.3	5.8	63	ssw.	2.7	396	972.3	5.8	.....	63	5.81	ssw.	2.7	388	.....	6/10 Ci.St., wnw.
						500	960.0	7.2	.....	59	5.99	ssw.	4.3	490	0	
8:10	972.3	5.8	63	ssw.	2.7	514	958.4	7.4	−1.36	58	5.97	ssw.	4.5	504	0	
						750	931.3	5.8	.....	61	5.62	wsw.	8.2	735	0	
8:18	972.3	5.4	64	sw.	3.1	809	924.5	5.4	0.68	62	5.56	wsw.	9.1	793	0	
						1,000	903.0	3.9	.....	62	5.01	w.	8.8	980	633	Few Ci.St., wnw.
8:34	972.3	5.6	65	sw.	3.6	1,096	892.4	3.1	0.80	62	4.73	w.	8.6	1,074	950	4/10 A.St., wnw.
						1,250	875.2	2.3	.....	53	3.82	w.	9.1	1,225	1,310	
						1,500	849.0	1.1	.....	39	2.58	wnw.	9.9	1,470	1,910	
8:49	972.3	5.6	68	ssw.	4.0	1,540	844.7	0.9	0.50	37	2.41	wnw.	10.0	1,509	2,000	
						1,750	823.0	−0.2	.....	40	2.40	wnw.	10.7	1,715	2,220	
						2,000	798.0	−1.4	.....	44	2.39	wnw.	11.6	1,960	2,490	
9:10	972.3	5.6	69	ssw.	4.0	2,011	796.4	−1.5	0.51	44	2.37	wnw.	11.6	1,971	2,500	8/10 A.St., wnw.
						2,250	773.3	−3.3	.....	57	2.64	wnw.	.....	2,205	3,070	
9:45	972.3	6.0	67	ssw.	4.0	2,384	759.9	−4.3	0.75	65	2.77	wnw.	.....	2,336	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Clock cylinder became loose.

TABLE 8.—*Free-air data from kite flights at Drexel Aerological Station, October, 1916*—Continued.

October 26, 1916, series (No. 1).

Surface.						At different heights above sea.											
Time.	Pressure.	Temperature.	Relative humidity.	Wind.		Altitude.	Pressure.	Temperature.	$\frac{\Delta t}{100\,m.}$	Humidity.		Wind.		Potential.		Remarks.
				Dir.	Vel.					Rel.	Vap. pres.	Dir.	Vel.	Gravity.	Electric.	
A. M.	*mb.*	°*C.*	%		*m. p. s.*	*m.*	*mb.*	°*C.*		%	*mb.*		*m. p. s.*	10^5 *ergs.*	*volts.*	
7:20	967.7	3.2	84	sw.	3.6	396	967.7	3.2	.....	84	6.46	sw.	3.6	388	.....	7/10Ci.St.,wnw,;1/10A.St.,wnw.
						500	955.3	9.3	.....	72	6.42	sw.	5.0	490	0	
						750	927.0	10.5	.....	42	5.33	w.	8.5	735	0	
7:41	967.8	4.0	85	sw.	4.0	817	919.7	11.9	−2.07	34	4.73	w.	9.4	801	0	
						1,000	899.7	10.2	.....	36	4.48	w.	10.8	980	860	
						1,250	873.3	7.9	.....	40	4.26	wnw.	12.7	1,225	2,030	
8:10	967.9	4.2	85	sw.	4.0	1,265	871.6	7.8	0.92	40	4.23	wnw.	12.8	1,240	2,100	5/10Ci.St.,wnw.,few A.St.,wnw.
						1,500	847.5	6.0	.....	44	4.11	wnw.	13.0	1,470	2,540	
						1,750	822.5	4.1	.....	47	3.85	wnw.	13.3	1,715	3,190	
						2,000	797.4	2.1	.....	51	3.63	wnw.	13.5	1,960	3,750	
8:43	967.9	6.3	75	sw.	3.1	2,121	785.3	1.2	0.77	53	3.53	wnw.	13.6	2,079	3,800	5/10 Ci.St., wnw.
						2,250	773.2	0.4	.....	54	3.40	wnw.	14.7	2,205	4,200	
						2,500	749.0	−1.2	.....	56	3.10	wnw.	16.9	2,450	4,980	
						2,750	726.1	−2.7	.....	58	2.94	wnw.	19.1	2,694	5,760	
8:59	967.9	6.2	78	wsw.	3.1	2,826	719.0	−3.2	0.62	59	2.76	wnw.	19.8	2,769	6,000	
						3,000	703.8	−4.2	.....	62	2.67	wnw.	20.4	2,939	6,430	
						3,250	682.2	−5.7	.....	66	2.49	wnw.	21.2	3,184	7,050	
9:22	968.0	9.3	64	wsw.	3.1	3,395	669.8	−6.6	0.60	68	2.38	wnw.	21.7	3,326	7,450	2/10 Ci.St., wnw.
						3,500	661.0	−6.7	.....	54	1.87	wnw.	20.2	3,429	7,760	
9:35	968.1	10.0	65	wsw.	3.6	3,514	659.7	−6.7	−0.08	52	1.80	wnw.	20.0	3,442	7,800	
						3,500	661.0	−6.7	.....	52	1.80	wnw.	20.0	3,429	7,720	
9:43	968.1	10.3	65	wsw.	3.6	3,351	672.6	−7.1	0.75	63	2.11	wnw.	20.1	3,283	6,880	FewCi.St.,wnw;3/10A.Cu.,wnw.
						3,250	681.8	−6.3	.....	63	2.26	wnw.	19.5	3,184	6,300	
						3,000	703.2	−4.5	.....	62	2.60	wnw.	18.2	2,939	4,880	
						2,750	725.8	−2.6	.....	62	3.05	w.	17.8	2,694	3,880	
						2,500	749.0	−0.7	.....	61	3.51	w.	15.5	2,450	3,150	
10:21	967.8	11.9	65	sw.	3.6	2,378	760.9	0.2	0.83	61	3.78	w.	14.8	2,330	2,800	5/10 A.Cu., wnw.
						2,250	773.2	1.3	.....	59	3.96	w.	14.7	2,205	2,640	
						2,000	797.4	3.3	.....	55	4.25	w.	14.4	1,960	2,320	
						1,750	822.5	5.4	.....	50	4.48	w.	14.2	1,715	2,000	
						1,500	847.5	7.5	.....	46	4.77	w.	14.0	1,470	1,440	
10:49	967.4	12.1	57	sw.	5.4	1,313	866.8	9.0	0.76	43	4.94	w.	13.8	1,287	1,010	2/10 A.Cu., wnw.
						1,250	873.3	9.5	.....	42	4.99	w.	13.5	1,225	880	
						1,000	899.7	11.4	.....	39	5.26	wsw.	12.2	980	370	
11:02	967.2	12.6	56	sw.	5.4	787	923.0	13.0	−2.16	36	5.39	wsw.	11.1	772	0	
						750	927.0	12.2	.....	40	5.68	wsw.	11.1	735	0	
11:04	967.2	12.8	55	sw....	5.4	671	935.9	10.5	1.02	47	5.97	sw.	11.1	658	0	
						500	955.3	12.2	.....	51	7.25	sw.	7.6	490	0	
11:07	967.2	13.3	54	sw....	5.4	396	967.2	13.3	.....	54	8.25	sw.	5.4	388	.....	1/10 A.Cu., wnw.

October 26, 1916, series (No. 2).

A. M.																
11:38	967.0	14.4	52	ssw.	6.3	396	967.0	14.4	.....	52	8.53	ssw.	6.3	388	.....	Few A.Cu., wnw.
						500	955.1	12.9	.....	51	7.59	ssw.	7.4	490	0	
11:47	967.0	14.8	49	ssw.	5.8	590	944.9	11.6	1.44	51	6.97	ssw.	8.3	578	0	
						750	926.9	12.3	.....	40	5.72	ssw.	12.4	735	50	
11:55	966.9	15.3	49	ssw.	6.7	818	919.1	12.6	−0.44	36	5.25	ssw.	14.1	802	260	
						1,000	899.4	11.2	.....	38	5.05	sw.	13.9	980	820	
						1,250	873.0	9.3	.....	41	4.81	sw.	13.6	1,225	1,720	
P. M.																
12:16	966.6	17.0	43	sw.	8.9	1,453	852.0	7.8	0.76	43	4.55	wsw.	13.4	1,424	2,700	Few A.Cu., wsw.
						1,500	847.0	7.4	.....	44	4.53	wsw.	13.6	1,470	2,820	
						1,750	821.9	5.0	.....	51	4.45	wsw.	14.8	1,715	3,460	
						2,000	796.8	2.7	.....	58	4.30	w.	16.0	1,960	4,140	
						2,250	772.0	0.4	.....	65	4.09	w.	17.2	2,205	5,020	
12:39	966.3	17.4	40	sw.	8.0	2,359	762.0	−0.6	0.93	68	3.95	w.	17.7	2,312	5,400	
						2,500	748.1	−2.4	.....	76	3.80	w.	18.6	2,450	6,560	
12:55	966.0	18.2	38	sw.	6.3	2,650	734.4	−4.3	1.43	85	3.62	w.	19.5	2,597	7,800	
						2,500	748.1	−1.9	.....	73	3.81	w.	21.0	2,450	6,630	
1:25	965.4	19.6	33	sw.	8.9	2,355	762.0	0.4	0.91	62	3.90	w.	22.6	2,308	5,500	Few A.Cu., wsw.
						2,250	772.0	1.4	.....	60	4.04	w.	21.3	2,205	5,100	
						2,000	796.1	3.6	.....	55	4.35	w.	18.3	1,960	4,150	
1:39	965.2	19.9	30	sw.	9.8	1,960	800.2	4.0	0.91	54	4.39	w.	17.8	1,921	4,000	
						1,750	821.0	5.9	.....	51	4.74	w.	17.2	1,715	3,500	
						1,500	846.3	8.2	.....	47	5.11	wsw.	16.4	1,470	2,910	
						1,250	872.1	10.4	.....	43	5.42	sw.	15.6	1,225	2,140	
2:01	964.8	21.0	30	sw.	11.6	1,110	887.0	11.7	1.23	41	5.64	sw.	15.2	1,088	1,685	Few Ci., wnw.; few A.Cu., wsw.
						1,000	898.5	13.0	.....	39	5.84	sw.	14.2	980	1,190	
						750	925.7	16.1	.....	35	6.40	wsw.	11.9	735	70	
2:12	964.8	20.6	31	wsw.	10.3	735	927.2	16.3	1.39	35	6.49	wsw.	11.8	721	0	
						500	953.0	19.6	.....	33	7.53	wsw.	11.0	490	0	
2:18	964.8	21.0	32	wsw.	10.7	396	964.8	21.0	.....	32	7.96	wsw.	10.7	388	.....	Few Ci., wnw.; few A.Cu., wsw.

October 26, 1916, series (No. 3).

P. M.																
2:50	964.8	20.8	32	w.	10.7	396	964.8	20.8	.....	32	7.86	w.	10.7	388	.....	Few A.Cu., wsw.
						500	953.0	19.4	.....	33	7.43	w.	11.5	490	0	
						750	925.5	15.9	.....	36	6.51	w.	13.4	735	0	
2:59	964.8	20.7	31	w.	10.7	795	920.8	15.3	1.38	37	6.43	w.	13.7	779	0	
						1,000	898.3	12.9	.....	42	6.25	w.	13.6	980	770	
						1,250	872.0	9.9	.....	49	5.98	w.	13.5	1,225	1,640	
3:18	964.8	20.0	34	wnw.	9.4	1,491	847.2	7.1	1.18	55	5.55	w.	13.4	1,462	2,400	
						1,500	846.1	7.0	.....	55	5.51	w.	13.5	1,470	2,420	
						1,750	821.0	5.2	.....	59	5.22	w.	14.9	1,715	2,970	
						2,000	796.0	3.3	.....	63	4.88	wnw.	16.4	1,960	3,510	
						2,250	772.0	1.5	.....	66	4.50	wnw.	17.9	2,205	4,170	
3:42	964.8	20.2	36	w.	8.0	2,487	749.5	−0.3	0.74	70	4.17	wnw.	19.3	2,437	4,800	Few Ci., wnw.; few A.Cu., wsw.
						2,500	748.2	−0.4	.....	70	4.14	wnw.	19.3	2,450	4,810	
						2,750	725.0	−2.6	.....	71	3.49	wnw.	19.5	2,694	5,030	

TABLE 8.—*Free-air data from kite flights at Drexel Aerological Station, October, 1916*—Continued.

October 26; 1916, series (No. 3)—Continued.

Surface.						At different heights above sea.										Remarks.
Time.	Pressure.	Temperature.	Relative humidity.	Wind.		Altitude.	Pressure.	Temperature.	$\frac{\Delta t}{100\ m.}$	Humidity.		Wind.		Potential.		
				Dir.	Vel.					Rel.	Vap. pres.	Dir.	Vel.	Gravity.	Electric.	
P. M.	*mb.*	*° C.*	%		*m. p. s.*	*m.*	*mb.*	*° C.*		%	*mb.*		*m. p. s.*	*10^5 ergs.*	*volts.*	
						3,000	702.3	−4.8		71	2.90	wnw.	19.8	2,939	5,350	
						3,250	680.4	−7.0		72	2.43	wnw.	20.0	3,184	5,940	
4:19	964.8	19.6	40	w.	5.8	3,274	678.4	−7.2	0.82	72	2.39	wnw.	20.0	3,207	6,000	Few A.Cu., w.
						3,250	680.9	−7.0		72	2.43	wnw.	19.9	3,184	5,900	
						3,000	702.3	−5.1		70	2.79	wnw.	19.2	2,939	4,930	
						2,750	725.0	−3.1		68	3.20	wnw.	18.7	2,694	4,290	
						2,500	748.7	−1.2		65	3.59	wnw.	17.9	2,450	3,640	
5:09	964.9	18.0	45	wsw.	4.5	2,444	754.0	−0.8	0.95	65	3.54	wnw.	17.7	2,395	3,500	Few A.Cu., w.
						2,250	772.6	1.0		62	4.07	wnw.	16.9	2,205	3,080	
						2,000	796.6	3.4		59	4.60	wnw.	15.9	1,960	2,540	
						1,750	821.5	5.8		55	5.07	w.	14.9	1,715	1,970	
						1,500	847.0	8.1		52	5.62	w.	14.0	1,470	1,400	
5:38	965.2	16.6	50	wsw.	4.5	1,461	850.8	8.5	1.10	51	5.66	w.	13.8	1,432	1,315	Few A.Cu., w.
						1,250	873.0	10.8		49	6.35	w.	13.7	1,225	460	
						1,000	899.5	13.5		47	7.27	w.	13.5	980	0	
						750	926.4	16.3		45	8.34	w.	13.3	735	0	
5:57	965.5	15.8	52	wsw.	4.9	712	930.5	16.7	0.65	45	8.55	w.	13.3	698	0	
						500	954.0	18.1		44	9.14	w.	13.5	490	0	
6:02	965.5	15.6	54	w.	5.4	421	962.8	18.6	−1.20	43	9.21	w.	13.6	413	0	
6:03	965.5	15.6	54	w.	5.4	396	965.5	15.6		54	9.57	w.	5.4	388		Few A.St., nw.

October 26, 1916, series (No. 4).

P. M.																
6:35	965.7	14.4	57	wsw.	4.0	396	965.7	14.4		57	9.35	wsw.	4.0	388		Few A.St. nw.
						500	954.0	17.3		51	10.07	wsw.	10.2	490	0	
6:36	965.7	14.4	57	wsw.	4.0	558	947.6	18.9	−2.78	48	10.48	wsw.	13.6	547	0	
						750	926.5	17.2		46	9.03	wsw.	14.6	735	0	
						1,000	899.8	15.0		43	7.33	w.	15.9	980	500	
6:56	965.9	14.1	57	wsw.	2.7	1,185	880.1	13.4	0.88	41	6.30	w.	16.8	1,162	920	Lightning in ene.
						1,250	873.3	12.7		42	6.17	w.	16.9	1,225	1,100	
						1,500	847.4	10.0		48	5.89	w.	17.5	1,470	1,780	
						1,750	822.9	7.3		53	5.42	wnw.	18.0	1,715	2,260	
						2,000	798.2	4.6		58	4.92	wnw.	18.5	1,960	2,690	
7:26	966.2	13.8	59	w.	5.4	2,121	786.3	3.3	1.08	61	4.72	wnw.	18.8	2,079	2,900	
						2,250	774.0	2.0		63	4.45	wnw.	19.1	2,205	3,030	
						2,500	750.1	−0.6		67	3.89	wnw.	19.6	2,450	3,270	
						2,750	727.1	−3.1		71	3.34	nw.	20.1	2,694	3,830	
8:10	966.6	15.2	48	nw.	0.9	2,996	704.7	−5.6	1.01	75	2.86	nw.	20.6	2,935	4,700	Few A.Cu., nw.
						2,750	727.1	−3.1		73	3.44	nw.	19.4	2,694	4,210	
						2,500	750.1	−0.7		71	4.09	nw.	18.2	2,450	3,710	
						2,250	774.0	1.8		69	4.80	wnw.	16.9	2,205	3,210	
9:18	967.5	13.3	54	wnw.	1.8	2,044	794.0	3.9	0.87	67	5.41	wnw.	15.9	2,003	2,800	4/10 St.Cu., wnw.
						2,000	798.2	4.3		66	5.48	wnw.	16.0	1,960	2,690	
						1,750	822.9	6.5		58	5.61	wnw.	16.2	1,715	2,040	
						1,500	848.3	8.6		51	5.70	nw.	16.5	1,470	1,320	
						1,250	874.8	10.8		44	5.70	nw.	16.8	1,225	280	10/10 St.Cu., nw.; rain 9:38–9:39 p. m.
9:50	968.0	12.6	60	nw.	1.8	1,183	891.7	11.4	0.80	42	5.66	nw.	16.9	1,160	0	
						1,000	901.3	12.9		42	6.25	nw.	16.9	980	0	
						750	928.6	14.8		41	6.90	nnw.	16.8	735	0	
10:06	968.2	13.1	57	nnw.	2.2	593	946.0	16.1	−1.37	41	7.50	nnw.	16.8	581	0	Rain began 10 p. m.
						500	956.7	14.8		47	7.91	nnw.	9.1	490	0	Raining at intervals.
10:09	968.3	13.4	54	nnw.	2.2	396	968.3	13.4		54	8.30	nnw.	2.2	388		10/10 St.Cu., wnw.
10:25																Rain ended.

October 26-27, 1916, series (No. 5).

P. M.																
10,48	968.5	12.8	55	nnw.	4.5	396	968.5	12.8		55	8.13	nnw.	4.5	388		
						500	956.6	13.9		50	7.94	nnw.	9.2	490	0	
10:51	968.5	12.8	55	nnw.	4.5	639	941.0	15.3	−1.03	44	7.65	nnw.	15.4	626	0	
						750	928.3	14.3		44	7.17	nnw.	15.6	735	0	Few A.St., nw.
						1,000	901.0	12.2		44	6.25	nw.	15.7	980	0	
11:06	968.6	12.2	56	nw.	3.6	1,127	887.9	11.1	0.86	44	5.81	nw.	15.8	1,105	0	
						1,250	874.7	10.5		45	5.72	nw.	16.9	1,225	480	
						1,500	848.7	9.1		48	5.55	nw.	19.0	1,470	1,460	
11:18	968.7	11.8	58	nw.	4.0	1,586	840.3	8.7	0.52	49	5.51	nw.	19.8	1,554	1,800	Cloudless.
						1,750	823.6	7.6		47	4.91	nw.	20.6	1,715	2,160	
						2,000	799.1	6.0		44	4.11	wnw.	21.7	1,960	2,710	
11:37	968.8	11.5	58	wnw	4.0	2,041	795.1	5.7	0.66	44	4.03	wnw.	21.9	2,000	2,800	
						2,250	775.1	3.6		45	3.56	wnw.	22.3	2,205	3,340	
11:53	968.9	11.2	59	wnw.	4.0	2,505	751.0	1.0	1.01	46	3.02	wnw.	22.8	2,455	4,000	
						2,750	728.3	−1.7		59	3.13	wnw.	25.3	2,694	5,110	Cloudless.
A. M.																
12:16	969.1	9.9	67	nw.	4.0	2,956	709.6	−3.9	1.09	70	3.09	wnw.	27.4	2,896		Kites broke away.

October 27, 1916, series (No. 6).

A. M.																
2:08	970.3	8.3	72	wnw.	4.0	396	970.3	8.3		72	7.88	wnw.	4.0	388		Few Cl.Cu., nw.
						500	958.5	12.7		64	9.40	nw.	13.8	490	0	
2:11	970.3	8.1	73	wnw.	4.0	506	957.5	13.0	−4.27	64	9.59	nw.	14.4	496	0	
						750	930.1	11.7		56	7.70	nnw.	10.6	735	0	Cloudless.
2:55	970.3	7.8	74	nw.	3.6	930	910.1	10.8	0.52	50	6.48	nnw.	7.8	912	755	
						1,000	902.8	10.3		51	6.39	nnw.	8.0	980	920	
						1,250	876.0	8.3		56	6.13	nw.	8.6	1,225	1,500	
3:14	970.4	7.8	75	nw.	3.6	1,425	857.5	7.0	0.77	60	6.01	nw.	9.0	1,397	1,900	
						1,500	849.9	7.3		57	5.83	nw.	12.9	1,470	2,080	
3:16	970.4	7.8	75	nw.	3.6	1,661	833.2	8.1	0.47	51	5.51	nw.	21.2	1,628	2,450	

TABLE 8.—*Free-air data from kite flights at Drexel Aerological Station, October, 1916*—Continued.

October 27; 1916, series (No. 6)—Continued.

Surface.						At different heights above sea.										Remarks.
Time.	Pressure.	Temperature.	Relative humidity.	Wind.		Altitude.	Pressure.	Temperature.	$\frac{\Delta t}{100\ m.}$	Humidity.		Wind.		Potential.		
				Dir.	Vel.					Rel.	Vap. pres.	Dir.	Vel.	Gravity.	Electric.	
A. M.	*mb.*	*°C.*	%		*m.p.s.*	*m.*	*mb.*	*°C.*		%	*mb.*		*m.p.s.*	*10^5 ergs.*	*volts.*	
						1,750	824.3	7.7	.....	49	5.15	nw.	21.7	1,715	2,660	
3:20	970.4	7.8	75	nw.	3.6	1,900	809.4	6.9	0.50	46	4.58	nw.	22.6	1,862	3,000	
						2,000	799.0	6.1	.....	45	4.21	nw.	22.3	1,960	3,240	
						2,250	775.0	4.1	.....	41	3.36	nw.	21.7	2,205	3,820	
						2,500	751.7	2.2	.....	38	2.72	wnw.	21.0	2,450	4,310	
3:54	970.6	7.3	76	nw.	1.3	2,649	738.1	1.0	0.79	36	2.37	wnw.	20.6	2,596	4,600	
						2,750	728.9	0.2	.....	39	2.42	wnw.	21.0	2,694	4,910	
						3,000	706.6	−1.8	.....	46	2.42	wnw.	22.1	2,939	5,690	
						3,250	685.2	−3.8	.....	53	2.35	wnw.	23.1	3,184	6,550	
4:40	971.1	6.4	79	nnw.	1.8	3,474	666.4	−5.6	0.80	60	2.29	wnw.	24.1	3,403	7,400	
						3,250	685.2	−3.8	.....	58	2.58	wnw.	24.1	3,184	6,480	
						3,000	706.6	−1.8	.....	55	2.89	wnw.	24.2	2,909	5,460	
						2,750	729.0	−0.2	.....	52	3.13	wnw.	24.2	2,694	4,480	
						2,500	752.3	2.1	.....	49	3.48	wnw.	24.3	2,450	3,760	
						2,250	775.8	4.1	.....	46	3.77	wnw.	24.3	2,205	3,030	
5:15	971.5	4.5	85	nw.	2.2	2,205	780.2	4.5	0.88	46	3.87	wnw.	24.3	2,161	2,900	
						2,000	799.2	6.3	.....	43	4.11	nw.	22.3	1,960	.....	
5:20	971.5	4.6	84	nw.	2.2	1,808	818.9	8.0	−0.80	40	4.29	nw.	20.5	1,772	.....	
						1,750	824.3	7.5	.....	39	4.04	nw.	16.5	1,715	.....	
5:22	971.6	4.7	84	nw.	2.2	1,607	839.3	6.4	0.57	38	3.65	nw.	6.5	1,575	.....	
						1,500	849.9	7.0	.....	39	3.91	nw.	6.5	1,470	.....	
						1,250	876.0	8.4	.....	41	4.52	nnw.	6.4	1,225	.....	
						1,000	903.1	9.8	.....	43	5.09	nnw.	6.2	980	.....	
						750	930.8	11.2	.....	44	5.85	n.	6.1	735	.....	
5:34	971.7	5.4	85	nw.	1.8	652	942.0	11.8	−2.38	45	6.23	n.	6.1	639	.....	
						500	959.4	8.2	.....	67	7.28	nnw.	3.5	490	.....	
5:44	971.8	5.7	82	nw.	1.8	396	971.8	5.7	.....	82	7.51	nw.	1.8	388	.....	Cloudless.

October 27, 1916, series (No. 7).

A. M.																
11:44	972.6	16.2	41	se.	5.4	396	972.6	16.2	.....	41	7.55	se.	5.4	388	.....	
						500	960.5	15.1	.....	39	6.69	se.	5.9	490	340	
						750	932.3	12.4	.....	36	5.18	sse.	7.2	735	1,150	
P. M.																
12:04	972.2	17.0	42	sse.	5.8	789	928.1	12.0	1.07	35	4.91	sse.	7.4	774	1,280	
						1,000	904.3	11.1	.....	43	5.68	s.	7.2	980	2,620	
12:42	971.6	17.6	37	se.	5.4	1,072	896.4	10.8	0.42	46	5.96	s.	7.1	1,051	2,800	
1:03	971.2	18.1	38	sse.	5.4	1,154	887.5	13.1	−2.80	44	6.64	ssw.	7.4	1,131	3,030	
						1,250	877.0	12.5	.....	44	6.37	ssw.	8.0	1,225	3,300	
						1,500	850.0	10.9	.....	43	5.61	ssw.	9.6	1,470	4,000	
						1,750	825.0	9.3	.....	42	4.92	sw.	11.2	1,715	4,710	
						2,000	800.9	7.8	.....	42	4.44	sw.	12.8	1,960	5,410	
						2,250	777.3	6.2	.....	41	3.89	sw.	14.4	2,205	5,970	
1:20	970.8	18.8	37	sse.	5.4	2,341	769.0	5.6	0.63	41	3.73	sw.	15.0	2,294	6,330	
						2,500	754.0	4.4	.....	43	3.60	sw.	14.9	2,450	6,680	Few Cl.St., w.
						2,750	731.3	2.4	.....	46	3.34	wsw.	14.7	2,694	7,240	
						3,000	709.0	0.4	.....	48	3.02	wsw.	14.5	2,939	7,630	
2:00	969.9	19.7	36	sse.	6.3	3,132	697.1	−0.6	0.86	50	2.90	wsw.	14.4	3,068	7,400	
						3,000	709.0	+0.6	.....	48	3.06	wsw.	14.6	2,939	6,170	
						2,750	731.3	3.0	.....	44	3.34	wsw.	14.9	2,694	5,330	
						2,500	754.0	5.3	.....	40	3.56	sw.	15.3	2,450	4,500	
2:47	969.4	20.0	36	sse.	5.4	2,352	767.8	6.7	0.73	38	3.73	sw.	15.5	2,305	4,000	
						2,250	777.3	7.4	.....	37	3.82	sw.	16.1	2,205	3,780	
						2,000	800.9	9.3	.....	35	4.10	ssw.	17.4	1,960	3,250	
						1,750	825.0	11.1	.....	33	4.36	ssw.	18.8	1,715	2,720	
3:04	969.1	19.8	37	s.	5.8	1,692	831.0	11.5	0.47	33	4.48	ssw.	19.1	1,658	2,600	
						1,500	850.0	12.4	.....	36	5.18	s.	15.9	1,470	2,230	
3:15	969.0	19.4	38	s.	5.4	1,331	867.6	13.2	0.74	38	5.76	s.	13.0	1,305	1,910	
						1,250	875.9	12.6	.....	39	5.69	s.	11.9	1,225	1,700	
3:17	968.9	19.4	38	s.	5.4	1,102	891.3	11.5	1.10	40	5.43	s.	10.0	1,080	1,160	
						1,000	902.1	12.6	.....	42	6.13	s.	10.3	980	740	
3:25	968.8	19.2	39	s.	6.3	820	921.7	14.6	1.11	46	7.65	sse.	10.8	804	0	
						750	929.1	15.4	.....	45	7.58	sse.	10.0	735	0	Cloudless.
						500	957.0	18.1	.....	41	8.52	s.	7.0	490	0	
3:33	968.6	19.3	39	s.	5.8	396	968.6	19.3	.....	39	8.73	s.	5.8	388	.....	

October 27, 1916, series (No. 8).

P. M.																
3:44	968.5	19.1	40	sse.	5.8	396	968.5	19.1	.....	40	8.84	sse.	5.8	388	.....	Cloudless.
						500	956.5	17.8	.....	42	8.56	sse.	7.4	490	0	
3:54	968.3	19.2	41	sse.	6.3	717	932.5	15.1	1.25	45	7.72	sse.	10.8	703	0	
						750	928.7	14.9	.....	45	7.62	sse.	11.0	735	120	
						1,000	901.5	13.1	.....	47	7.09	sse.	12.8	980	1,070	
4:01	968.2	19.0	42	sse.	5.4	1,162	884.4	11.9	0.72	48	6.69	sse.	14.0	1,139	1,685	
						1,250	875.0	12.6	.....	44	6.42	s.	14.6	1,225	1,860	
4:11	968.1	19.5	42	s.	4.0	1,376	862.2	13.7	−0.84	39	6.12	ssw.	15.5	1,349	2,100	
						1,500	849.9	12.7	.....	39	5.73	ssw.	15.8	1,470	2,340	
						1,750	825.2	10.7	.....	38	4.89	ssw.	16.3	1,715	2,820	Cloudless.
						2,000	800.1	8.0	.....	37	3.97	sw.	16.8	1,960	3,320	
4:36	967.8	19.1	42	s.	4.9	2,192	781.3	7.2	0.80	36	3.66	sw.	17.2	2,148	3,700	
						2,250	775.6	6.7	.....	36	3.53	sw.	17.4	2,205	3,830	
						2,500	751.8	4.6	.....	36	3.05	sw.	18.1	2,450	4,380	Cloudless.
						2,750	733.9	2.5	.....	36	2.63	wsw.	18.8	2,694	4,980	
5:25	967.3	16.3	52	sse.	3.6	2,981	708.7	0.6	0.91	36	2.30	wsw.	19.5	2,921	5,600	
						2,750	733.6	2.9	.....	35	2.64	sw.	19.5	2,694	4,770	
						2,500	751.8	5.3	.....	34	3.03	sw.	19.6	2,450	4,240	Few Cl.Cu.
						2,250	774.9	7.8	.....	32	3.39	ssw.	19.6	2,205	3,790	
6:33	966.7	14.7	56	se.	5.4	2,198	779.8	8.3	0.70	32	3.50	ssw.	19.6	2,154	3,700	
						2,000	798.5	9.7	.....	31	3.73	ssw.	19.6	1,960	3,290	
						1,750	822.8	11.5	.....	29	3.94	s.	19.5	1,715	2,760	

TABLE 8.—*Free-air data from kite flights at Drexel Aerological Station, October, 1916*—Continued.

October 27, 1916, series (No. 9)—Continued.

Surface.						At different heights above sea.										
Time.	Pressure.	Temperature.	Relative humidity.	Wind.		Altitude.	Pressure.	Temperature.	Δt / 100 m.	Humidity.		Wind.		Potential.		Remarks.
				Dir.	Vel.					Rel.	Vap. pres.	Dir.	Vel.	Gravity.	Electric.	
A. M.	*mb.*	*° C.*	*%*		*m. p. s.*	*m.*	*mb.*	*° C.*		*%*	*mb.*		*m. p. s.*	*10^8 ergs.*	*volts.*	
7:04	966.5	14.5	58	sse.	5.8	1,530	844.7	13.0	.....	27	4.04	s.	19.5	1,500	2,300	
						1,500	847.5	13.0	.....	28	4.19	s.	19.8	1,470	2,240	
7:12	966.4	14.4	58	sse.	5.4	1,326	865.3	13.0	1.23	34	5.09	s.	21.5	1,300	1,870	
						1,250	873.0	13.9	.....	37	5.88	s.	20.5	1,225	1,710	
7:25	966.3	14.3	58	sse.	6.3	1,172	881.2	14.9	−0.40	41	6.95	s.	19.4	1,149	1,550	
						1,000	899.3	14.2	.....	41	6.64	s.	19.5	980	960	Few A.Cu.
						750	926.4	13.2	.....	42	6.37	s.	19.6	735	110	
7:41	966.1	14.0	59	sse.	6.3	650	937.4	12.8	0.47	42	6.21	s.	19.6	637	0	
						500	954.1	13.5	.....	52	8.04	sse.	12.0	490	0	
7:44	966.1	14.0	59	sse.	6.7	396	966.1	14.0	.....	59	9.43	sse.	6.7	388	.....	Few A.Cu.
October 28, 1916.																
A. M.																
7:33	963.1	11.9	59	s.	4.9	396	963.1	11.9	.....	59	8.22	s.	4.9	388	.....	4/10 A.St.,sw.; 5/10 St.Cu.,sw.
						500	951.7	12.3	.....	57	8.16	s.	6.3	490	0	
						750	923.8	13.2	.....	53	7.99	s.	9.6	735	0	
						1,000	896.6	14.1	.....	49	7.88	ssw.	13.0	980	840	
7:50	963.1	12.2	60	s.	5.4	1,130	882.7	14.5	−0.35	46	7.59	ssw.	14.7	1,108	1,390	
						1,250	870.8	13.7	.....	49	7.68	ssw.	15.4	1,225	1,690	
						1,500	844.9	12.1	.....	56	7.91	ssw.	17.0	1,470	2,060	6/10 A.St.,sw.; 1/10 St.Cu.,sw.
8:12	963.1	13.0	57	s.	4.5	1,740	820.8	10.5	0.66	62	7.87	ssw.	18.5	1,705	2,600	
						1,750	820.0	10.5	.....	62	7.87	ssw.	18.4	1,715	2,630	
						2,000	796.0	10.0	.....	66	8.10	s.	15.1	1,960	3,190	
8:23	963.1	13.2	57	s.	4.9	2,047	791.2	9.9	0.20	67	8.17	s.	14.5	2,006	3,300	
						2,250	772.0	8.4	.....	65	7.16	s.	15.8	2,205	3,820	
						2,500	748.8	6.7	.....	62	6.08	s.	17.4	2,450	4,470	5/10 Ci.St.,sw.; 3/10 A.St.,sw.
						2,750	726.0	4.8	.....	59	5.07	ssw.	19.0	2,694	5,370	
8:54	963.1	13.6	53	s.	4.5	2,984	705.5	3.2	0.71	57	4.38	ssw.	20.5	2,924	6,200	
						3,000	704.0	3.1	.....	57	4.35	ssw.	20.5	2,939	6,250	
						3,250	682.1	1.1	.....	58	3.84	ssw.	20.4	3,184	7,010	5/10 Ci.St.,sw.; 1/10 A.St.,sw.
						3,500	661.2	−1.0	.....	59	3.32	sw.	20.3	3,429	7,820	
						3,750	641.0	−3.0	.....	60	2.85	sw.	20.2	3,673	8,940	6/10 Ci.St.,sw.; 2/10 A.St.,sw.
9:50	962.9	14.6	48	s.	5.8	3,852	632.7	−3.8	0.89	60	2.66	sw.	20.2	3,773	9,400	
						3,750	640.8	−2.8	.....	57	2.76	sw.	20.8	3,673	9,060	
						3,500	660.5	−0.4	.....	50	2.96	sw.	22.1	3,429	8,230	9/10 A.St.,sw.
						3,250	681.2	2.0	.....	43	3.04	ssw.	23.5	3,184	7,400	
						3,000	703.0	4.5	.....	36	3.01	ssw.	24.9	2,939	6,530	
10:50	962.6	15.9	44	ssw.	10.3	2,924	709.8	5.2	0.70	34	3.01	ssw.	25.3	2,855	6,320	
						2,750	725.0	6.4	.....	34	3.27	ssw.	25.9	2,694	5,740	9/10 A.St.,sw.
						2,500	747.3	8.2	.....	35	3.80	ssw.	26.7	2,450	4,910	
						2,250	770.2	9.9	.....	36	4.39	ssw.	27.5	2,205	4,050	
11:20	962.4	16.7	42	ssw.	10.7	2,091	785.1	11.0	−1.42	36	4.73	ssw.	28.0	2,049	3,500	4/10 Ci.St.,sw.; 4/10 A.St.,sw.
						2,000	793.8	9.7	.....	42	5.05	ssw.	27.2	1,960	3,220	
11:25	962.3	16.7	42	ssw.	11.2	1,879	805.2	8.0	0.13	50	5.36	ssw.	26.1	1,842	2,850	
						1,750	817.8	8.2	.....	51	5.54	ssw.	24.0	1,715	2,450	7/10 Ci.St.,sw.; 2/10 A.St.,sw.
						1,500	842.8	8.5	.....	54	5.99	ssw.	19.8	1,470	2,050	
						1,250	868.7	8.8	.....	56	6.34	ssw.	15.7	1,225	1,520	
11:48	962.2	16.9	42	s.	10.3	1,105	884.3	9.0	1.13	57	6.54	ssw.	13.3	1,083	1,205	
						1,000	895.8	10.2	.....	54	6.72	ssw.	12.7	980	820	
11:56	962.1	17.2	42	ssw.	9.8	778	919.7	12.7	1.18	48	7.05	ssw.	11.5	763	0	
						750	922.8	13.0	.....	48	7.19	ssw.	11.2	735	0	
						500	950.0	16.0	.....	44	8.00	ssw.	9.0	490	0	
P. M.																
12:04	962.1	17.2	42	ssw.	8.0	396	962.1	17.2	.....	42	8.24	ssw.	8.0	388	.....	3/10 Ci.St.,sw.; 6/10 A.St.,sw.
October 29, 1916.																
A. M.																
7:39	971.2	2.4	98	n.	4.0	396	971.2	2.4	.....	98	7.11	n.	4.0	388	.....	
						500	958.8	1.6	.....	93	6.38	ne.	8.3	490	0	
7:42	971.2	2.5	91	nne.	3.6	510	957.6	1.5	0.79	93	6.33	ne.	8.7	500	0	
7:45	971.2	2.6	86	nne.	3.6	662	939.8	6.8	−3.49	64	6.32	ne.	7.0	649	0	
						750	929.8	6.9	.....	62	6.17	ne.	6.9	735	0	1/10 A.Cu., wnw.
						1,000	901.5	7.1	.....	58	5.85	nne.	6.7	980	0	
						1,250	874.8	7.3	.....	54	5.52	n.	6.4	1,225	2,180	Few A.Cu., wnw.
9:04	971.6	5.1	76	nne.	3.6	1,397	859.7	7.4	−0.82	51	5.25	n.	6.3	1,369	2,440	
						1,500	848.9	6.7	.....	54	5.30	n.	6.1	1,470	2,670	
						1,750	823.6	4.9	.....	61	5.28	n.	5.5	1,715	.....	3/10 A.Cu., wnw.
9:29	971.8	5.4	72	nne.	2.2	1,970	801.7	3.3	0.70	67	5.19	n.	5.0	1,931	.....	
						1,750	823.6	4.8	.....	61	5.25	n.	5.6	1,715	.....	
						1,500	849.4	6.4	.....	54	5.19	n.	6.2	1,470	.....	4/10 A.Cu., wnw.
9:42	971.9	6.4	71	nne.	3.6	1,373	862.9	7.3	−1.49	51	5.22	n.	6.5	1,346	.....	
11:09	972.4	8.7	61	ne.	3.1	1,259	875.6	5.6	0.58	35	3.18	nne.	5.6	1,234	.....	
						1,250	876.0	5.7	.....	35	3.21	nne.	5.6	1,225	.....	
						1,000	903.5	7.1	.....	26	2.62	ne.	5.2	980	.....	4/10 Ci.St., wnw.
11:15	972.4	8.7	61	ne.	3.1	947	909.2	7.4	0.70	26	2.68	ne.	5.1	928	.....	
						750	931.7	6.0	.....	45	4.21	ne.	5.0	735	.....	
11:25	972.2	9.4	59	ne.	3.1	676	939.8	5.5	1.34	52	4.70	ne.	4.9	663	.....	
11:41	971.9	10.0	58	ne.	2.7	519	957.6	7.6	1.79	63	6.58	ne.	4.5	509	.....	
						500	960.0	7.9	.....	62	6.60	ne.	4.2	490	.....	
11:43	971.9	9.8	58	ne.	2.7	396	971.9	9.8	.....	58	7.03	ne.	2.7	388	.....	6/10 Ci.St., wnw.

TABLE 8.—*Free-air data from kite flights at Drexel Aerological Station, October, 1916*—Continued.

October 30, 1916.

Surface.						At different heights above sea.										Remarks.
Time.	Pressure.	Temperature.	Relative humidity.	Wind.		Altitude.	Pressure.	Temperature.	$\frac{\Delta t}{100\ m.}$	Humidity.		Wind.		Potential.		
				Dir.	Vel.					Rel.	Vap. pres.	Dir.	Vel.	Gravity.	Electric.	
A. M.	*mb.*	*° C.*	%		*m. p. s.*	*m.*	*mb.*	*° C.*		%	*mb.*		*m. p. s.*	*10^5 ergs.*	*volts.*	
9:51	967.7	8.0	98	ssw.	7.2	396	968.7	8.0	.....	98	10.52	ssw.	7.2	388	.....	Dense fog, ssw.
						500	955.4	7.3	.....	98	10.03	ssw.	6.9	490	469	
10:00	967.6	8.0	97	ssw.	5.8	632	940.3	6.4	0.68	98	9.42	ssw.	6.5	620	1,060	
						750	927.0	7.3	.....	88	9.00	ssw.	7.4	735	1,595	
						1,000	899.8	9.2	.....	66	7.68	ssw.	9.4	980	2,240	
						1,250	872.8	11.1	.....	44	5.81	sw.	11.4	1,225	2,760	
10:22	967.5	8.4	98	ssw.	6.7	1,325	864.8	11.7	−0.76	38	5.22	sw.	12.0	1,299	2,830	Dense fog, ssw
						1,500	846.8	10.9	.....	34	4.43	sw.	12.2	1,470	2,980	
						1,750	821.7	9.7	.....	29	3.49	sw.	12.4	1,715	3,200	
						2,000	797.3	8.5	.....	24	2.66	sw.	12.7	1,960	3,770	
						2,250	773.8	7.3	.....	18	1.84	sw.	13.0	2,205	4,340	
10:47	967.3	8.8	96	sw.	7.6	2,406	758.9	6.5	0.48	15	1.45	sw.	13.2	2,358	4,700	Dense fog changed to light at 10:54 a. m.
						2,500	750.2	5.6	.....	16	1.46	sw.	13.6	2,450	4,820	
						2,750	727.0	3.2	.....	18	1.38	sw.	14.8	2,694	5,130	Lt. fog, sw.; 10/10 St., sw.
						3,000	704.9	0.9	.....	19	1.24	wsw.	16.0	2,939	5,380	Lt. fog ended, 11:15 a. m.
11:30	966.8	10.2	93	sw.	7.6	3,248	683.5	− 1.4	0.94	21	1.14	wsw.	17.2	3,182	5,550	
						3,500	662.1	− 4.0	.....	38	1.66	wsw.	16.4	3,429	5,930	
						3,750	641.6	− 6.6	.....	54	1.89	wsw.	15.7	3,673	6,360	
						4,000	621.3	− 9.3	.....	71	1.96	wsw.	15.0	3,918	6,800	
P. M.																
12:22	966.1	12.2	82	s.	7.6	4,051	617.3	− 9.8	0.96	74	1.95	wsw.	14.8	3,968	.....	10/10 St., wsw.
						4,000	621.3	− 9.4	.....	73	2.00	wsw.	15.1	3,918	6,800	Alt. of cloud base 3,300 m.
						3,750	640.9	− 7.2	.....	69	2.29	wsw.	16.6	3,673	6,260	
						3,500	661.0	− 5.1	.....	65	2.59	wsw.	18.0	3,429	5,710	
						3,250	682.0	− 2.9	.....	60	2.88	wsw.	19.5	3,184	5,160	10/10 St.Cu., wsw.
1:20	965.4	13.1	79	ssw.	8.0	3,168	689.3	− 2.2	0.81	59	3.00	wsw.	20.0	3,104	4,980	
						3,000	703.7	− 0.8	.....	57	3.25	wsw.	18.9	2,939	4,620	
						2,750	725.9	1.2	.....	54	3.60	wsw.	17.2	2,694	3,980	
						2,500	748.8	3.2	.....	51	3.92	wsw.	15.6	2,450	3,220	
1:54	965.2	13.6	75	wsw.	7.6	2,296	767.9	4.9	0.75	48	4.16	wsw.	14.3	2,250	2,600	
						2,250	772.0	5.2	.....	47	4.16	wsw.	14.2	2,205	2,540	
						2,000	795.9	7.1	.....	44	4.44	wsw.	13.6	1,960	2,200	3/10 St.Ci., wsw.
						1,750	820.3	9.0	.....	40	4.59	wsw.	13.1	1,715	1,870	4/10A.St.,wsw.;3/10St.Cu.,wsw.
						1,500	845.5	10.8	.....	36	4.66	wsw.	12.6	1,470	1,580	
						1,250	871.6	12.7	.....	33	4.85	wsw.	12.0	1,225	1,290	
2:24	965.0	14.9	69	sw.	7.6	1,239	872.8	12.8	−0.53	33	4.88	wsw.	12.0	1,215	1,280	
						1,000	898.0	11.5	.....	60	8.14	sw.	11.5	980	790	
2:33	965.0	15.0	67	sw.	7.2	804	919.3	10.5	1.10	82	10.41	sw.	11.0	788	380	
						750	925.1	11.1	.....	80	10.57	sw.	10.7	735	330	
						500	952.9	13.9	.....	71	11.27	sw.	9.1	490	100	
2:42	964.9	15.0	67	sw.	8.5	396	964.9	15.0	.....	67	11.42	sw.	8.5	388	.....	3/10 Ci., wsw.; 3/10 Ci.St., wsw.

October 31, 1916.

A. M.																
7:20	974.5	1.4	78	wnw.	5.4	396	974.5	1.4	.....	78	5.27	wnw.	5.4	388	.....	Cloudless throughout flight.
						500	962.0	5.3	.....	61	5.44	nw.	6.8	490	0	
7:24	974.6	1.4	78	wnw.	4.9	628	947.3	10.1	−3.75	39	4.82	nw.	8.5	616	0	
						750	933.7	8.9	.....	38	4.33	nw.	8.4	735	0	
7:46	974.8	1.5	76	w.	4.0	989	907.0	6.6	0.87	36	3.51	nw.	8.3	970	0	Wind nw. at 100 m. aloft.
						1,000	905.9	6.5	.....	36	3.48	nw.	8.3	980	0	
						1,250	879.0	4.9	.....	31	2.68	nw.	8.8	1,225	1,090	
						1,500	852.5	3.2	.....	26	2.00	nw.	9.3	1,470	2,480	
8:29	975.3	3.4	73	w.	4.0	1,542	848.1	2.9	0.67	25	1.88	nw.	9.4	1,511	2,630	
						1,750	826.6	2.2	.....	21	1.50	nw.	11.6	1,715	3,210	
						2,000	801.3	1.3	.....	16	1.07	nw.	14.2	1,960	3,890	
8:53	975.6	4.4	72	w.	3.6	2,125	789.0	0.9	0.34	14	0.91	nw.	15.5	2,082	4,520	
						2,250	777.0	1.5	.....	16	1.09	nw.	19.1	2,205	5,150	
8:54	975.6	4.4	72	w.	3.6	2,282	773.8	1.7	−0.51	17	1.17	nw.	20.0	2,238	5,320	
						2,500	753.2	0.0	.....	22	1.34	nw.	21.4	2,450	6,420	
						2,750	730.0	−1.9	.....	28	1.46	nw.	22.9	2,694	7,680	
8:59	975.7	4.7	72	w.	3.6	2,762	729.0	−2.0	0.77	28	1.45	nw.	23.0	2,706	7,750	
9:01	975.7	4.8	71	w.	3.1	2,843	721.6	−1.7	−0.37	30	1.59	nw.	24.0	2,786	8,160	
9:12	975.6	5.4	69	wsw.	1.8	2,971	709.9	−2.2	0.50	37	1.88	w.	24.5	2,911	8,800	
						2,750	730.0	−0.8	.....	43	2.46	wnw.	28.1	2,694	7,100	
9:31	975.5	6.4	66	w.	2.2	2,731	731.9	−0.7	−1.00	43	2.48	wnw.	28.4	2,676	7,060	
9:33	975.5	6.6	65	w.	2.2	2,633	740.9	−1.7	0.74	46	2.44	wnw.	22.4	2,580	6,210	
						2,500	753.2	−0.9	.....	43	2.44	wnw.	21.4	2,450	4,190	
						2,250	777.0	0.6	.....	38	2.42	wnw.	19.4	2,205	.....	
						2,000	801.3	2.9	.....	33	2.48	nw.	17.4	1,960	.....	
10:07	975.3	10.2	55	wnw.	1.3	1,817	819.9	4.3	−0.32	29	2.41	nw.	16.0	1,781	.....	
						1,750	826.6	4.1	.....	29	2.38	nw.	14.9	1,715	.....	
						1,500	852.5	3.3	.....	27	2.09	nw.	10.8	1,470	.....	
10:10	975.2	10.2	55	wnw.	1.3	1,437	859.2	3.1	0.84	27	2.06	nw.	9.8	1,409	.....	
						1,250	879.0	4.7	.....	29	2.48	nw.	8.4	1,225	.....	
						1,000	905.9	6.8	.....	31	3.06	wnw.	6.6	980	.....	
						750	933.7	8.9	.....	33	3.76	wnw.	4.8	735	.....	
10:21	975.2	9.5	54	w.	0.9	636	947.3	9.5	−0.96	34	4.12	wnw.	3.9	623	.....	
10:22	975.2	9.6	54	nww.	0.9	511	961.8	8.6	0.87	36	4.02	wnw.	3.9	501	.....	
						500	963.1	8.7	.....	38	4.30	wnw.	3.6	490	.....	
10:23	975.2	9.6	54	wnw.	0.9	396	975.2	9.6	.....	54	6.45	wnw.	0.9	388	.....	

TABLE 9.—*Free-air data from kite flights at Drexel Aerological Station, November, 1916.*

November 1, 1916.

Surface.						At different heights above sea.										Remarks.
Time.	Pressure.	Temperature.	Relative humidity.	Wind.		Altitude.	Pressure.	Temperature.	$\frac{\Delta t}{100\ m.}$	Humidity.		Wind.		Potential.		
				Dir.	Vel.					Rel.	Vap. pres.	Dir.	Vel.	Gravity.	Electric.	
A. M.	*mb.*	°*C.*	%		*m. p. s.*	*m.*	*mb.*	°*C.*		%	*mb.*		*m. p. s.*	10^6 *ergs.*	*volts.*	
8:07	973.4	6.5	65	n.	3.1	396	973.4	6.5	.....	65	6.29	n.	3.1	388	.....	Few Cl., wnw.; few Ci.St., wnw.
						500	961.3	8.3	.....	55	6.23	n.	5.0	490	200	
						750	933.0	14.5	.....	32	5.28	nne.	9.7	735	690	
8:19	973.5	6.8	65	n.	3.6	870	919.9	17.2	−2.26	21	4.12	nne.	11.9	853	920	
						1,000	905.8	16.1	.....	20	3.66	nne.	10.5	980	1,420	
						1,250	879.8	14.1	.....	19	3.06	nne.	7.9	1,225	2,320	
8:40	973.8	8.2	61	n.	3.6	1,389	865.4	13.0	0.81	18	2.70	nne.	6.5	1,362	2,700	3/10 Cl., wnw.
						1,500	853.9	12.0	.....	18	2.53	nne.	6.4	1,470	2,990	
						1,750	829.0	9.7	.....	20	2.41	n.	6.2	1,715	3,660	
						2,000	804.8	7.4	.....	21	2.16	n.	6.1	1,960	4,360	
9:52	974.6	10.8	49	nne.	5.4	2,103	794.9	6.4	0.92	21	2.02	n.	6.0	2,061	5,100	Few Cl., wnw.
						2,250	780.9	5.4	.....	23	2.06	n.	7.2	2,205	5,030	
						2,500	757.1	3.6	.....	27	2.14	wnw.	9.4	2,450	4,920	
11:25	974.7	15.9	34	nne.	3.1	2,636	744.8	2.7	0.69	29	2.15	wnw.	10.5	2,583	5,850	
						2,750	734.1	1.9	.....	29	2.03	wnw.	10.7	2,694	6,170	
						3,000	711.2	0.2	.....	29	1.80	wnw.	11.0	2,939	.....	Few Cl., wnw.
						3,250	689.3	−1.4	.....	28	1.52	wnw.	11.4	3,184	.....	
						3,500	668.1	−3.1	.....	28	1.32	wnw.	11.8	3,429	.....	
						3,750	647.6	−4.8	.....	28	1.14	wnw.	12.2	3,673	.....	
P. M.																
12:07	974.7	17.4	26	n.	3.6	3,835	641.0	−5.4	0.67	28	1.09	wnw.	12.3	3,756	.....	
						3,750	647.6	−4.8	.....	28	1.14	wnw.	12.3	3,673	.....	
						3,500	668.1	−3.2	.....	30	1.40	wnw.	12.3	3,429	.....	
						3,250	689.3	−1.5	.....	30	1.62	wnw.	12.2	3,184	.....	
						3,000	711.2	0.2	.....	31	1.92	nw.	12.2	2,939	.....	
						2,750	734.1	1.8	.....	32	2.23	nw.	12.2	2,694	3,570	
12:35	974.7	17.6	23	nne.	5.4	2,699	738.8	2.1	0.74	32	2.28	nw.	12.2	2,645	3,480	
						2,500	757.1	3.6	.....	30	2.37	nw.	11.7	2,450	3,120	
						2,250	780.9	5.4	.....	28	2.51	nw.	11.1	2,205	2,680	
						2,000	804.8	7.3	.....	26	2.66	n.	10.5	1,960	2,180	
						1,750	829.9	9.1	.....	23	2.66	n.	10.0	1,715	1,650	
1:00	974.7	17.9	20	nne.	5.8	1,601	844.8	10.2	0.93	22	2.74	n.	9.6	1,569	1,360	
						1,500	855.4	11.1	.....	22	2.91	n.	9.6	1,470	1,200	
						1,250	881.6	13.5	.....	20	3.09	nne.	9.6	1,225	780	
1:12	974.7	18.1	21	nne.	4.9	1,141	892.6	14.5	−0.09	20	3.30	nne.	9 6	1,119	595	
						1,000	907.8	14.4	.....	20	3.28	nne.	9.6	980	350	
1:21	974.7	18.3	20	nne.	4.0	798	929.6	14.2	1.09	19	3.08	nne.	9.5	782	0	1/10 Cl., wnw.
						750	934.9	14.7	.....	19	3.08	nne.	8.8	735	0	
						500	962.8	17.5	.....	20	4.00	n.	5.4	490	0	
1:26	974.7	18.6	20	n.	4.0	396	974.7	18.6	.....	20	4.29	n.	4.0	388	.....	

November 2, 1916.

P. M.																
6:11	976.3	12.6	33	sse.	1.8	396	976.3	12.6	.....	33	4.81	sse.	1.8	386	.....	3/10 Cl., nw.; few A.Cu., nw.
						500	964.2	14.4	.....	35	5.74	sse.	6.0	490	0	
6:12	976.3	12.6	33	sse.	1.8	555	957.9	15.4	−1.76	36	6.30	sse.	8.2	544	0	
						750	936.1	13.6	.....	35	5.31	sse.	7.6	735	0	
						1,000	908.7	11.5	.....	33	4.48	s.	6.9	980	920	
6:31	976.2	12.2	33	sse.	2.2	1,049	903.2	11.1	0.87	33	4.36	s.	6.8	1,028	1,105	
6:55	976.0	11.7	36	sse.	2.2	1,228	884.0	11.7	−0.34	25	3.44	ssw.	6.3	1,204	1,360	1/10 Cl., nw.
						1,250	881.8	11.6	.....	25	3.42	ssw.	6.4	1,225	1,390	
						1,500	854.8	11.1	.....	26	3.43	ssw.	7.2	1,470	2,010	
						1,750	829.3	8.6	.....	27	3.02	sw.	8.0	1,715	2,700	
						2,000	804.6	7.2	.....	28	2.84	sw.	8.8	1,960	3,340	
7:18	975.8	11.4	36	sse.	1.3	2,151	790.2	6.3	0.59	29	2.77	sw.	9.3	2,108	3,700	
						2,250	780.7	5.5	.....	30	2.69	sw.	9.7	2,205	3,940	Cloudless.
						2,500	757.3	3.6	.....	31	2.45	sw.	10.6	2,450	4,540	
						2,750	734.6	1.7	.....	33	2.28	wsw.	11.6	2,694	5,410	
						3,000	712.2	−0.2	.....	35	2.10	wsw.	12.6	2,939	6,290	
7:53	975.4	11.8	38	s.	0.5	3,217	692.5	−1.9	0.80	36	1.88	wsw.	13.4	3,152	.....	
						3,000	712.2	−0.1	.....	35	2.12	wsw.	13.2	2,939	6,100	
						2,750	734.6	2.0	.....	35	2.47	sw.	12.9	2,694	4,970	
						2,500	757.3	4.0	.....	34	2.76	sw.	12.6	2,450	4,260	
						2,250	780.7	6.1	.....	34	3.20	ssw.	12.3	2,205	3,550	
						2,000	804.6	8.2	.....	33	3.59	ssw.	12.0	1,960	3,090	Few Cl., nw.
8:33	975.3	9.8	43	sse.	0.5	1,974	807.1	8.4	0.34	33	3.64	ssw.	12.0	1,935	3,050	
						1,750	829.3	9.2	.....	32	3.72	ssw.	11.3	1,715	2,650	
						1,500	854.8	10.0	.....	31	3.81	ssw.	10.6	1,470	2,200	
8:47	975.3	9.6	43	sse.	0.9	1,249	880.8	10.9	0.00	30	3.91	ssw.	9.8	1,224	1,760	
8:54	975.3	9.5	43	sse.	0.9	1,129	893.6	10.9	0.60	29	3.78	ssw.	10.1	1,107	1,300	
						1,000	907.4	11.7	.....	29	3.99	ssw.	10.4	980	730	
						750	935.0	12.8	.....	30	4.43	s.	11.0	735	0	
						500	963.5	14.7	.....	30	5.02	sse.	11.7	490	0	
9:07	975.2	9.5	45	sse.	0.9	489	964.4	14.8	−6.00	30	5.05	sse.	11.7	479	0	
9:08	975.2	9.5	45	sse.	0.9	396	975.2	9.5	.....	45	5.34	sse.	0.9	388	.....	Few Cl., nw.

November 3, 1916.

A. M.																
8:15	967.9	12.0	56	ssw.	7.2	396	967.9	12.0	.....	56	7.86	ssw.	7.2	388	.....	8/10A.St., wnw; 2/10St.Cu., wnw.
						500	956.0	13.9	.....	55	8.73	sw.	10.5	490	70	
						750	928.5	18.5	.....	53	11.29	wsw.	18.3	735	230	
8:20	967.9	12.0	56	ssw.	7.2	788	924.3	19.2	−1.84	53	11.79	wsw.	19.5	773	260	
						1,000	902.0	18.1	.....	53	11.01	wsw.	19.7	980	1,230	
						1,250	876.3	16.7	.....	52	9.89	wsw.	19.9	1,225	2,430	
8:40	967.9	12.4	56	ssw.	9.8	1,401	860.2	15.9	0.54	52	9.40	wsw.	20.0	1,373	3,200	
						1,500	850.5	15.7	.....	48	8.56	wsw.	18.5	1,470	3,610	
						1,750	825.3	15.4	.....	38	6.65	wsw.	14.6	1,715	4,600	
9:01	967.9	12.4	59	sw.	8.0	1,797	820.9	15.3	0.15	36	6.26	wsw.	13.9	1,859	4,750	3/10Ci.St., wnw.; 7/10A.St., wnw.
						2,000	800.6	13.8	.....	32	5.05	wsw.	13.7	1,960	5,404	

TABLE 9.—*Free-air data from kite flights at Drexel Aerological Station, November, 1916*—Continued.

November 3, 1916—Continued.

Surface.						At different heights above sea.										Remarks.
Time.	Pressure.	Temperature.	Relative humidity.	Wind.		Altitude.	Pressure.	Temperature.	$\frac{\Delta t}{100\ m.}$	Humidity.		Wind.		Potential.		
				Dir.	Vel.					Rel.	Vap. pres.	Dir.	Vel.	Gravity.	Electric.	
A. M.	*mb.*	°*C.*	%		*m. p. s.*	*m.*	*mb.*	°*C.*		%	*mb.*		*m. p. s.*	10^5 *ergs.*	*volts.*	
						2,250	777.1	11.9	.....	26	3.62	wsw.	13.5	2,205	6,220	
9:35	967.1	13.2	61	sw.	7.6	2,460	758.0	10.3	0.75	22	2.76	wsw.	13.3	2,411	7,000	
						2,500	754.3	9.9	.....	22	2.68	wsw.	13.4	2,450	7,040	
						2,750	731.9	7.2	.....	25	2.54	wsw.	14.2	2,694	7,450	
						3,000	709.3	4.6	.....	28	2.37	wsw.	14.8	2,939	8,400	
10:40	966.3	18.0	54	wsw.	7.6	3,159	696.0	2.9	1.08	30	2.26	wsw.	15.2	3,095	9,000	
						3,000	709.3	4.6	.....	29	2.46	wsw.	15.3	2,939	8,040	22° halo until after flight end.
						2,750	739.1	7.4	.....	28	2.88	wsw.	15.4	2,694	6,610	4/10 Cl., wnw.; 4/10 Cl.St., wnw.;
						2,500	754.3	10.1	.....	27	3.34	wsw.	15.5	2,450	5,530	few A.Cu., wnw.
11:23	965.9	19.4	52	sw.	8.5	2,377	765.5	11.4	0.82	26	3.50	wsw.	15.5	2,329	5,000	
						2,250	777.1	12.4	.....	25	3.60	wsw.	15.0	2,205	4,520	
						2,000	800.4	14.4	.....	23	3.77	wsw.	14.0	1,960	3,580	
						1,750	824.7	16.5	.....	21	3.94	wsw.	13.0	1,715	2,720	9/10 Cl.St., wnw.
						1,500	849.3	18.6	.....	19	4.07	wsw.	12.0	1,470	1,950	
11:47	965.7	19.8	52	wsw.	8.5	1,387	860.2	19.5	0.19	18	4.08	wsw.	11.5	1,360	1,600	
						1,250	874.2	19.8	.....	19	4.39	wsw.	14.9	1,225	1,420	
11:57	965.5	20.3	52	wsw.	6.7	1,227	876.2	19.8	−2.46	19	4.39	wsw.	15.5	1,203	1,390	
P. M.																
12:04	965.4	20.8	51	wsw.	6.7	1,056	893.8	15.6	0.73	28	4.96	wsw.	11.8	1,035	890	
						1,000	899.9	16.0	.....	32	5.82	wsw.	11.1	980	720	
12:12	965.3	21.2	49	wsw.	6.3	754	925.9	17.8	1.01	51	10.39	wsw.	7.9	739	0	
						500	954.1	20.4	.....	48	11.51	wsw.	7.0	490	0	
12:18	965.1	21.4	47	wsw.	6.7	396	965.1	21.4	.....	47	11.98	wsw.	6.7	388	.....	9/10 Cl.St., wnw.

November 4, 1916.

A. M.																
7:36	969.8	7.2	69	e.	4.5	396	969.8	7.2	.....	69	7.01	e.	4.5	388	.....	Few Cl.St., near horizon.
						500	957.9	9.7	.....	61	7.34	e.	6.3	490	530	
						750	930.1	15.7	.....	41	7.31	e.	10.6	735	1,810	
7:40	969.8	7.2	69	e.	4.0	802	923.9	17.0	−2.42	37	7.17	e.	11.5	786	2,070	
7:46	969.8	7.3	69	e.	4.0	952	907.8	17.5	−0.33	29	5.80	e.	12.7	933	2,590	
						1,000	902.8	17.1	.....	29	5.66	e.	12.5	980	2,720	
7:50	969.8	7.5	68	e.	4.5	1,211	880.6	15.2	0.59	29	5.01	e.	11.8	1,187	3,300	
						1,250	876.8	15.2	.....	29	5.01	e.	11.3	1,225	3,420	Few Cl. St., near horizon.
						1,500	851.3	15.1	.....	27	4.63	e.	7.8	1,470	4,180	
8:20	970.1	9.2	64	e.	4.0	1,699	831.5	15.0	0.04	25	4.26	ese.	5.0	1,665	4,600	
						1,750	827.0	14.5	.....	25	4.13	ese.	5.1	1,715	4,720	
						2,000	802.9	12.2	.....	26	3.69	ese.	5.4	1,960	5,480	
9:10	970.6	11.7	52	e.	6.7	2,091	794.2	11.3	0.94	26	3.48	ese.	5.5	2,049	5,800	
						2,250	779.5	9.8	.....	28	3.39	ese.	5.4	2,205	6,310	Few Cl., nw.
9:48	970.6	13.6	46	e.	5.4	2,499	756.2	7.4	0.96	30	3.09	ese.	5.2	2,449	7,100	
						2,750	733.5	5.4	.....	31	2.78	ese.	4.9	2,694	6,900	
						3,000	711.2	3.3	.....	31	2.40	se.	4.5	2,939	6,700	
9:57	970.6	14.6	42	e.	5.8	3,241	690.1	1.4	0.80	32	2.16	se.	4.2	3,175	6,500	
						3,000	711.2	3.3	.....	33	2.55	se.	5.4	2,939	5,730	
						2,750	733.0	5.2	.....	34	3.01	ese.	6.7	2,694	5,520	
10:22	970.6	15.7	39	e.	7.6	2,675	739.7	5.8	0.82	34	3.13	ese.	7.1	2,621	5,460	
						2,500	755.3	7.2	.....	33	3.35	ese.	7.5	2,450	5,330	
						2,250	779.0	9.3	.....	31	3.63	ese.	8.2	2,205	5,140	1/10 Cl., nw.
10:36	970.6	16.0	39	e.	8.9	2,234	780.4	9.4	0.92	31	3.65	ese.	8.2	2,189	5,120	
						2,000	802.9	11.6	.....	29	3.96	ese.	7.8	1,960	4,840	
						1,750	827.0	13.9	.....	27	4.29	ese.	7.4	1,715	4,300	
10:52	970.6	16.5	37	e.	7.2	1,561	845.7	15.6	−0.42	25	4.43	ese.	7.1	1,530	3,850	
						1,500	852.1	15.3	.....	25	4.34	ese.	8.3	1,470	3,700	
11:02	970.6	17.0	36	e.	6.7	1,249	877.4	14.3	0.44	26	4.24	ese.	13.4	1,224	3,100	
						1,000	903.3	15.4	.....	25	4.38	ese.	16.0	980	1,780	
11:07	970.5	17.6	35	e.	6.7	975	906.2	15.5	−1.42	25	4.40	ese.	16.3	956	1,640	
11:12	970.5	17.8	35	e.	6.3	827	922.3	13.4	1.11	30	4.61	ese.	16.0	811	860	
						750	931.1	14.3	.....	31	5.05	ese.	14.2	735	710	
						500	959.1	17.0	.....	32	6.20	e.	9.6	490	210	
11:23	970.4	18.2	33	e.	7.6	396	970.4	18.2	.....	33	6.90	e.	7.6	388	.....	Few Cl., nw.

November 5, 1916.

A. M.																
7:43	966.9	10.9	69	sse.	5.4	396	966.9	10.9	.....	69	9.00	sse.	5.4	388	.....	Cloudless.
						500	954.4	12.6	.....	64	9.34	sse.	7.2	490	300	
						750	927.2	16.7	.....	50	9.50	s.	11.5	735	1,030	
7:51	966.9	11.0	69	sse.	5.8	776	924.3	17.2	−1.66	49	9.61	s.	12.0	761	1,105	
						1,000	900.1	16.8	.....	51	9.76	s.	16.3	980	1,820	
						1,250	874.0	16.3	.....	54	10.01	sse.	21.2	1,225	2,610	
8:10	966.8	11.6	68	sse.	5.4	1,277	871.4	16.2	0.20	54	9.95	sse.	21.7	1,252	2,700	
						1,500	848.1	14.1	.....	56	9.01	sse.	21.5	1,470	3,860	
						1,750	823.2	11.8	.....	59	8.17	s.	21.2	1,715	5,100	
						2,000	798.8	9.5	.....	62	7.36	s.	20.9	1,960	6,220	
8:30	966.7	12.3	65	se.	5.4	2,083	791.5	8.7	0.93	63	7.09	s.	20.8	2,041	6,600	
						2,250	775.6	10.5	.....	35	4.44	s.	13.6	2,205	6,060	
8:50	966.6	13.0	62	se.	6.7	2,325	768.7	11.3	−1.07	22	2.95	s.	10.3	2,278	5,810	
						2,500	752.3	10.2	.....	21	2.61	s.	10.0	2,450	5,870	
						2,750	730.0	8.6	.....	19	2.12	s.	9.6	2,694	7,830	Few Cl., nw.
9:30	966.4	14.7	57	sse.	6.7	2,821	723.9	8.1	0.64	18	1.94	s.	9.5	2,764	8,500	
						3,000	708.1	6.5	.....	17	1.65	s.	9.6	2,939	8,800	
						3,250	687.3	4.3	.....	15	1.25	s.	9.8	3,184	.....	2/10 Cl., nw.
10:17	966.0	16.5	53	sse.	7.6	3,434	671.8	3.7	0.76	13	1.03	s.	10.0	3,364	.....	
						3,250	687.3	5.2	.....	14	1.24	s.	9.9	3,184	.....	
						3,000	709.1	7.1	.....	14	1.41	s.	9.9	2,939	8,160	5/10 Cl., nw.
						2,750	731.0	9.1	.....	15	1.73	s.	9.8	2,694	6,840	
10:50	965.6	17.9	48	sse.	7.6	2,724	732.8	9.3	0.58	15	1.76	s.	9.8	2,669	6,700	
						2,500	752.9	10.6	.....	16	2.04	s.	12.5	2,450	5,930	
						2,250	776.6	12.1	.....	18	2.54	s.	15.5	2,205	5,540	

TABLE 9.—*Free-air data from kite flights at Drexel Aerological Station, November, 1916*—Continued.

November 5, 1916—Continued.

Surface.						At different heights above sea.										Remarks.
Time.	Pressure.	Temperature.	Relative humidity.	Wind.		Altitude.	Pressure.	Temperature.	$\frac{\Delta t}{100\,m.}$	Humidity.		Wind.		Potential.		
				Dir.	Vel					Rel.	Vap. pres.	Dir.	Vel.	Gravity.	Electric.	
A. M.	*mb.*	°*C.*	%		*m. p. s.*	*m.*	*mb.*	°*C.*		%	*mb.*		*m. p. s.*	*10^5 ergs.*	*volts.*	
11:14	965.3	18.4	48	sse.	6.3	2,226	777.7	12.2	0.64	18	2.56	s.	15.8	2,182	5,300	
						2,000	798.8	13.7		27	4.23	s.	18.1	1,960	5,030	
						1,750	823.2	15.3		37	6.43	sse.	20.5	1,715	4,310	
						1,500	847.7	16.9		48	9.24	sse.	23.0	1,470	3,600	
11:34	964.9	18.8	48	sse.	6.3	1,464	850.8	17.1	−0.78	49	9.56	sse.	23.4	1,435	3,500	
						1,250	872.8	15.4		52	9.10	sse.	20.6	1,225	2,660	
						1,000	898.4	13.5		56	8.66	sse.	17.3	980	1,330	3/10 Ci., nw.
11:52	964.6	19.2	46	sse.	7.2	968	901.8	13.4	1.08	56	8.61	sse.	17.1	949	1,100	
						750	925.4	15.8		52	9.33	sse.	13.3	735	0	
						500	952.7	18.5		48	10.22	sse.	9.0	490	0	
P. M.																
12:08	964.4	19.6	46	sse.	7.2	396	964.4	19.6		46	10.49	sse.	7.2	388		

November 6, 1916.

A. M.																
10:03	957.4	19.4	45	wsw.	9.4	396	957.4	19.4		45	10.14	wsw.	9.4	388		Few Ci.St., sw.
						500	946.2	18.0		44	9.08	wsw.	9.8	490	0	
10:13	957.6	19.4	39	wsw.	8.0	731	920.7	15.0	1.31	43	7.33	wsw.	10.7	717	0	
						750	919.0	14.8		42	7.07	wsw.	10.7	735	40	
						1,000	892.2	12.3		35	5.01	w.	10.4	980	500	
10:46	958.2	19.9	23	w.	7.6	1,217	869.4	10.1	1.01	28	3.46	wnw.	10.1	1,193	1,460	
						1,250	866.0	9.9		28	3.42	wnw.	10.0	1,225	1,640	
						1,500	839.8	8.0		26	2.79	wsw.	9.3	1,470	1,170	
						1,750	814.6	6.2		23	2.18	sw.	8.6	1,715	1,560	
11:47	959.2	19.5	19	wnw.	9.8	1,844	806.4	5.5	0.73	22	1.99	sw.	8.3	1,807	1,700	
						2,000	790.4	5.8		23	2.12	sw.	10.1	1,960	2,360	
11:53	959.3	19.4	19	wnw.	8.9	2,097	781.7	6.0	−0.20	23	2.15	sw.	11.3	2,055	2,770	
						2,250	767.4	5.1		23	2.02	sw.	14.1	2,205	3,420	
						2,500	744.2	3.6		24	1.90	sw.	18.6	2,450	4,480	
						2,750	722.2	2.1		24	1.71	sw.	23.1	2,694	5,530	
11:58	959.4	19.4	19	wnw.	11.6	2,800	717.2	1.8	0.60	24	1.67	sw.	24.0	2,743	5,740	
						3,000	699.5	1.6		22	1.51	ssw.	25.0	2,939	6,590	
P. M.																
12:05	959.4	19.4	18	nw.	10.3	3,145	686.7	1.4	−0.04	21	1.42	ssw.	25.7	3,081	7,200	
						3,000	699.5	1.1		21	1.39	ssw.	25.2	2,939	6,480	
12:38	959.7	19.8	14	wnw.	8.9	2,791	717.2	0.7	0.49	22	1.41	sw.	24.4	2,735	5,430	Few Ci.St., sw.
						2,750	721.8	0.9		22	1.43	sw.	23.8	2,694	5,290	
						2,500	744.0	2.2		23	1.65	sw.	20.4	2,450	4,090	
						2,250	767.4	3.4		24	1.87	sw.	16.9	2,205	3,270	
1:01	959.8	19.1	11	wsw.	8.0	2,078	783.3	4.2	0.30	24	1.98	sw.	14.5	2,036	2,700	
						2,000	790.9	4.4		23	1.93	sw.	14.1	1,960	2,490	
						1,750	815.7	4.9		19	1.65	w.	13.0	1,715	2,320	
1:15	959.9	18.8	8	wnw.	8.9	1,534	837.7	5.3	1.04	16	1.43	wnw.	12.0	1,504	2,160	
						1,500	841.1	5.7		16	1.47	wnw.	11.9	1,470	2,140	Few Ci.St., nw.
						1,250	868.0	8.3		15	1.64	wnw.	11.5	1,225	1,440	
1:30	960.0	18.8	12	wnw.	8.5	1,151	877.4	9.3	1.26	15	1.76	wnw.	11.3	1,128	1,105	
						1,000	894.4	11.2		15	2.00	wnw.	11.3	980	590	
1:42	960.0	18.8	11	wnw.	8.5	824	912.7	13.4	1.26	15	2.31	nw.	11.3	808	0	
						750	921.3	14.3		14	2.28	nw.	10.6	735	0	
						500	948.8	17.5		13	2.60	wnw.	8.2	490	0	
1:48	960.0	18.8	12	wnw.	7.2	396	960.0	18.8		12	2.60	wnw.	7.2	388		Cloudless.

November 7, 1916.

P. M.																
3:12	960.2	8.2	92	ene.	7.2	396	960.2	8.2		92	10.00	ene.	7.2	388		10/10 St., ene.
						500	948.1	7.4		96	9.89	ene.	13.5	490	880	Alt. of St. base about 600 m.
3:13	960.2	8.2	92	ene.	7.2	558	941.6	6.9	0.80	98	9.75	ene.	17.0	547	1,020	
						750	921.1	10.2		98	12.20	e.	16.0	735	1,470	
						1,000	895.2	12.5		94	13.62	ese.	19.2	980	3,270	
3:26	960.0	8.5	91	ne.	9.8	1,097	885.7	13.7	−1.26	93	14.58	se.	19.7	1,075	4,010	Flashes.
						1,250	869.2	12.5		96	13.91	sse.	19.4	1,225	5,120	5/10 St.Cu., ese.; 5/10 St.Cu., ene.
						1,500	842.3	10.6		100	12.78	s.	18.8	1,470	7,340	
3:44	958.7	8.6	90	ne.	9.8	1,518	838.9	10.5	0.76	100	12.70	s.	18.8	1,488	7,500	Few A.Cu., ssw.; 8/10 St.Cu., ese.;
						1,750	817.0	9.1		95	10.98	s.	19.6	1,715	7,870	2/10 St.Cu., ene.
						2,000	791.8	7.6		91	9.50	ssw.	20.5	1,960	8,840	4/10 St.Cu., s.; 4/10 St.Cu., sse.;
4:04	959.4	8.4	90	ne.	8.9	2,032	788.0	7.4	0.60	90	9.27	ssw.	20.6	1,991	9,000	2/10 St.Cu., ene.
						2,250	768.1	6.2		89	8.44	ssw.	22.9	2,205	10,680	
						2,500	744.7	4.8		88	7.69	ssw.	25.5	2,450	12,610	
4:20	959.4	8.2	91	ne.	7.2	2,550	740.0	4.5	0.62	88	7.41	ssw.	26.0	2,499	13,000	
						2,500	744.7	4.8		87	7.48	ssw.	25.8	2,450	12,650	
						2,250	768.1	6.6		83	8.90	ssw.	24.7	2,205	10,880	
4:45	959.4	8.0	91	nne.	8.0	2,000	791.3	8.3		78	8.54	ssw.	23.6	1,960	9 110	2/10 Ci.Cu., sw.; 8/10 St.Cu., sse.
						1,984	792.6	8.4	0.50	78	8.60	ssw.	23.5	1,945	9,000	
						1,750	815.8	9.6		86	10.28	ssw.	23.8	1,715	7,060	
						1,500	841.1	10.8		94	12.17	s.	24.1	1,470	4,980	
4:58	959.4	7.8	94	nne.	7.2	1,442	846.1	11.1	0.90	96	12.68	s.	24.2	1,414	4,500	
						1,250	867.0	12.8		89	13.15	s.	23.2	1,225	3,140	
5:05	959.5	7.8	92	nne.	7.6	1,118	879.5	14.0	−1.65	84	13.42	s.	22.5	1,096	2,200	Rain 5:07–5:18 p. m.
						1,000	883.0	12.1		88	12.43	se.	20.2	980	1,500	
						750	920.2	7.9		97	10.33	ne.	15.2	735	10	
5:21	959.9	7.9	91	n.	5.4	656	930.1	6.4	0.58	100	9.61	n.	13.3	643	0	
						500	947.5	7.3		95	9.72	n.	8.8	490	0	
5:22	959.9	7.9	91	n.	5.8	396	959.9	7.9		91	9.69	n.	5.8	388		10/10 St.Cu., ne.

TABLE 9.—*Free-air data from kite flights at Drexel Aerological Station, November, 1916*—Continued.

November 8, 1916.

Surface.						At different heights above sea.										Remarks.
Time.	Pressure.	Temperature.	Relative humidity.	Wind.		Altitude.	Pressure.	Temperature.	$\frac{\Delta t}{100\,m.}$	Humidity.		Wind.		Potential.		
				Dir.	Vel.					Rel.	Vap. pres.	Dir.	Vel.	Gravity.	Electric.	
A. M.	*mb.*	°*C.*	%		*m.p.s.*	*m.*	*mb.*	°*C.*		%	*mb.*		*m.p.s.*	10^5 *ergs.*	*volts.*	
9:14	971.1	4.2	88	n.	4.5	396	971.1	4.2	.....	88	7.26	n.	.....	388	.....	10/10 St., nne.
						500	958.9	3.3	.....	92	7.12	n.	.....	490	420	
9:24	971.0	4.2	88	n.	4.0	737	930.9	1.2	0.88	100	6.66	n.	.....	723	1,390	St. base about 700 m.
						750	929.3	1.1	.....	87	5.76	n.	.....	735	1,470	
						1,000	900.6	0.9	.....	74	4.82	n.	.....	980	2,940	
						1,250	873.5	0.6	.....	49	3.13	nne.	.....	1,225	4,160	
9:40	970.8	4.3	88	n.	5.8	1,275	870.3	0.6	0.11	46	2.93	nne.	19.1	1,250	4,240	
						1,500	846.4	−0.9	.....	66	3.74	nne.	.....	1,470	4,920	
						1,750	820.2	−2.6	.....	89	4.38	nne.	.....	1,715	5,640	
10:20	970.9	4.6	86	n.	4.0	1,876	807.4	−3.5	0.68	100	4.56	nne.	.....	1,839	6,000	10/10 St., nne.
						2,000	795.0	−4.0	.....	99	4.33	nne.	.....	1,960	6,000	
						2,250	770.6	−5.0	.....	98	3.93	n.	.....	2,205	6,570	5/10 St.Cu., nne.; 5/10 St., nne.
						2,500	746.5	−6.0	.....	97	3.57	n.	.....	2,450	.....	St.Cu. bases about 2,200 m. at 11:18 a. m.
11:58	971.6	5.8	65	nne.	4.0	2,608	736.2	−6.4	0.32	96	3.42	nnw.	.....	2,555	.....	4/10A.St.,wsw.;5/10St.Cu.,wsw.
						2,500	746.5	−6.2	.....	92	2.97	n.	.....	2,450	.....	
						2,250	770.6	−5.6	.....	82	3.12	n.	.....	2,205	7,740	
						2,000	795.0	−5.0	.....	72	2.89	nne.	.....	1,960	5,330	
P. M.																
12:34	970.9	6.2	62	nne.	4.5	1,911	803.9	−4.8	0.78	68	2.77	nne.	.....	1,873	5,300	7/10A.St.,wsw.;2/10St.Cu.,wsw.
						1,750	820.2	−3.6	.....	58	2.62	nne.	.....	1,715	4,830	
						1,500	846.4	−1.6	.....	42	2.25	nne.	.....	1,470	3,110	
12:51	970.5	6.5	61	nne.	4.0	1,253	872.8	0.3	0.07	26	1.62	nne.	.....	1,228	3,000	
						1,000	900.6	0.5	.....	31	1.96	nne.	.....	980	1,860	
1:01	970.3	6.4	59	ne.	4.0	978	902.9	0.5	0.65	31	1.96	nne.	.....	959	1,760	
1:09	970.3	6.4	60	ne.	4.0	777	925.8	1.8	1.21	60	4.18	n.	.....	762	860	
						750	929.0	2.1	.....	60	4.27	n.	.....	735	800	
						500	958.1	5.1	.....	59	5.19	n.	.....	490	230	
1:16	970.3	6.4	58	n.	4.0	396	970.3	6.4	.....	58	5.57	n.	.....	388	.....	6/10A.St.,wsw.;3/10St.Cu.,wsw.

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A. M.																
7:28	966.6	−1.1	75	wsw.	7.2	396	966.6	−1.1	.....	75	4.18	wsw.	7.2	388	.....	Cloudless.
						500	953.8	4.7	.....	49	4.18	w.	10.1	490	0	
7:34	966.3	−1.0	78	w.	6.7	558	947.1	7.9	−5.56	34	3.62	w.	11.7	547	0	
7:46	966.3	−0.8	79	w.	5.8	737	926.6	7.4	0.28	24	2.47	w.	9.8	723	0	
						750	925.5	7.3	.....	24	2.46	w.	9.8	735	40	
						1,000	897.7	5.5	.....	25	2.26	w.	9.0	980	840	Cloudless.
						1,250	870.2	3.8	.....	27	2.17	w.	8.3	1,225	1,870	
8:12	966.2	−0.3	79	wsw.	5.4	1,303	864.7	3.4	0.71	27	2.11	w.	8.1	1,277	2,100	Few Ci.St., wnw.
						1,500	843.4	1.6	.....	34	2.33	w.	8.8	1,470	2,620	
8:40	966.2	1.1	81	wsw.	4.5	1,605	832.9	0.7	0.89	37	2.38	w.	9.1	1,573	2,900	6/10 Ci., wnw.; few Ci.St., wnw.
						1,750	817.3	−0.2	.....	37	2.22	w.	9.8	1,715	3,550	
						2,000	791.8	−1.8	.....	38	2.00	w.	11.0	1,960	4,680	
						2,250	767.0	−3.4	.....	39	1.79	wnw.	12.3	2,205	5,800	
						2,500	743.6	−5.0	.....	40	1.60	wnw.	13.5	2,450	6,930	6/10 Ci., wnw.; 3/10 Ci.St., wnw.
						2,750	720.9	−6.6	.....	41	1.44	wnw.	14.7	2,694	8,050	Arc of a halo at 9:18.
9:20	966.2	2.0	68	wsw.	4.9	2,804	716.1	−6.9	0.63	41	1.40	wnw.	15.0	2,747	8,300	Left parhelion 9:36 a. m.
						3,000	699.0	−7.7	.....	45	1.43	wnw.	16.2	2,939	9,370	
						3,250	676.9	−8.8	.....	50	1.44	wnw.	17.7	3,184	10,740	Halo complete 9:44.
						3,500	655.1	−9.9	.....	56	1.47	wnw.	19.2	3,429	12,110	Upper tangent arc of 22° halo.
9:50	966.2	3.9	71	wnw.	5.4	3,755	633.3	−11.0	0.34	61	1.45	wnw.	20.8	3,678	13,500	Circumzenithal arc at 44°
						3,500	655.1	−10.4	.....	63	1.58	wnw.	18.9	3,429	11,050	or 1 above sun.
						3,250	676.9	−9.7	.....	65	1.74	wnw.	17.1	3,184	9,240	All halos gone by 10:05.
						3,000	698.2	−9.1	.....	67	1.88	wnw.	15.3	2,939	8,040	6/10 Ci., wnw.; 4/10 Ci., wnw.
10:18	966.1	4.2	71	wsw.	4.9	2,889	708.3	−8.8	0.81	68	1.97	wnw.	14.5	2,831	7,560	
						2,750	720.9	−7.7	.....	64	2.04	wnw.	14.3	2,694	6,970	
						2,500	743.6	−5.6	.....	58	2.21	wnw.	14.1	2,450	5,900	
10:30	966.0	4.4	70	wsw.	5.4	2,359	757.8	−4.5	0.77	54	2.26	wnw.	13.9	2,312	5,300	
						2,250	768.0	−3.7	.....	52	2.33	wnw.	13.6	2,205	4,880	
						2,000	791.8	−1.7	.....	48	2.54	wnw.	12.8	1,960	3,910	
						1,750	817.3	0.2	.....	44	2.73	w.	12.0	1,715	2,930	
						1,500	843.4	2.1	.....	40	2.84	wsw.	11.3	1,470	1,980	
10:59	965.9	5.8	63	wsw.	4.9	1,256	869.6	4.0	0.70	36	2.93	wsw.	10.5	1,231	1,075	3/10 Ci., wnw.
						1,250	870.2	4.0	.....	36	2.93	wsw.	10.5	1,225	1,060	
						1,000	897.7	5.8	.....	30	2.77	wsw.	10.6	980	450	
						750	925.5	7.6	.....	25	2.61	wsw.	10.8	735	0	
11:13	965.7	7.3	59	wsw.	4.0	702	930.4	7.9	−1.56	24	2.56	wsw.	10.8	688	0	
11:15	965.7	7.3	58	wsw.	4.0	567	945.8	5.8	0.94	28	2.58	wsw.	10.8	556	0	
						500	953.8	6.4	.....	39	3.75	wsw.	8.3	490	0	
11:17	965.7	7.4	57	wsw.	4.5	396	965.7	7.4	.....	57	5.87	wsw.	4.5	388	.....	1/10 Ci., wnw.

November 9, 1916 (No. 2).

P. M.																
12:05	964.8	10.4	46	sw.	5.4	396	964.8	10.4	.....	46	5.80	sw.	5.4	388	.....	7/10 Ci., wnw.
						500	952.6	9.5	.....	45	5.34	sw.	6.4	490	0	
12:15	964.6	10.6	41	sw.	6.3	673	932.9	7.9	0.90	44	4.09	sw.	8.0	660	0	
						750	924.7	7.5	.....	43	4.46	sw.	8.1	735	250	
						1,000	896.9	6.2	.....	40	3.79	sw.	8.6	980	1,080	3/10 Ci.St., wnw.
						1,250	870.0	4.9	.....	37	3.20	wsw.	9.1	1,225	1,850	
12:53	964.3	11.0	48	sw.	5.4	1,401	853.3	4.1	0.52	35	2.87	wsw.	9.4	1,373	2,270	5/10 Ci.St., wnw.
						1,500	843.4	3.3	.....	37	2.86	wsw.	10.0	1,470	2,530	
						1,750	817.2	1.4	.....	41	2.77	wsw.	11.5	1,715	3,210	
						2,000	792.1	−0.5	.....	45	2.64	w.	13.0	1,960	3,890	
1:23	963.7	12.0	48	sw.	6.3	2,226	769.8	−2.2	0.76	48	2.44	w.	14.3	2,181	4,500	7/10 Ci.St., wnw.
						2,250	767.2	−2.4	.....	49	2.45	w.	14.5	2,205	4,590	
						2,500	743.0	−4.1	.....	58	2.51	w.	16.4	2,450	5,490	

TABLE 9.—*Free-air data from kite flights at Drexel Aerological Station, November, 1916*—Continued.

November 9, 1916 (No. 2)—Continued.

Surface.						At different heights above sea.											
Time.	Pressure.	Temperature.	Relative humidity.	Wind.		Altitude.	Pressure.	Temperature.	$\frac{\Delta t}{100\ m.}$	Humidity.		Wind.		Potential.		Remarks.
				Dir.	Vel.					Rel.	Vap. pres.	Dir.	Vel.	Gravity.	Electric.	
P. M.	*mb.*	*°C.*	%		*m. p. s.*	*m.*	*mb.*	*°C.*		%	*mb.*		*m. p. s.*	*10^5 ergs.*	*volts.*	
						2,750	719.5	−5.9	.....	66	2.45	w.	18.3	2,694	6,390	
						3,000	696.5	−7.7	.....	75	2.38	w.	20.3	2,939	7,380	3/10Cl.Cu.,wnw.;4/10Cl.St.,wnw.
1:49	983.1	11.8	47	sw.	5.4	3,119	686.5	−8.5	0.71	79	2.34	w.	21.6	3,056	7,860	
						3,250	675.0	−8.9	.....	77	2.20	w.	21.1	3,184	8,380	3/10Cl.St.,wnw.;6/10A.Cu.,wnw.
						3,500	653.9	−9.8	.....	74	1.95	w.	20.1	3,429	9,380	
1:58	982.8	12.0	48	sw.	5.4	3,653	640.9	−10.3	0.34	72	1.82	w.	19.5	3,578	10,000	
						3,500	653.9	−9.8	.....	73	1.93	w.	19.8	3,429	9,410	
						3,250	675.0	−8.9	.....	74	2.12	w.	20.3	3,184	8,440	3/10Cl.St.,wnw.;4/10A.;Cu.wnw;
						3,000	696.5	−8.0	.....	75	2.32	w.	21.7	2,939	7,480	2/10 A.St., wnw.
2:25	982.5	11.5	44	sw.	5.4	2,966	699.7	−7.9	0.79	75	2.34	w.	20.8	2,906	7,350	
						2,750	718.8	−6.2	.....	69	2.50	w.	19.7	2,694	6,350	
						2,500	742.0	−4.2	.....	62	2.67	w.	18.5	2,450	5,150	4/10A.Cu.wnw.; 6/10A.St.,wnw.
						2,250	766.0	−2.2	.....	55	2.80	w.	17.3	2,205	4,050	
						2,000	790.6	−0.2	.....	48	2.88	w.	16.0	1,960	3,490	
						1,750	816.1	1.8	.....	41	2.85	w.	14.8	1,715	2,930	
2:52	982.2	11.6	44	sw.	5.8	1,694	821.6	2.2	0.72	39	2.79	w.	14.5	1,660	2,800	
						1,500	841.5	3.6	.....	38	3.01	w.	14.2	1,470	2,330	7/10A.Cu.wnw. ;3/10A.St.,wnw.
						1,250	867.6	5.4	.....	37	3.32	wsw.	13.7	1,225	1,720	
						1,000	894.3	7.2	.....	36	3.66	sw.	13.3	980	700	
3:15	982.0	11.8	46	sw.	5.8	835	912.4	8.4	0.82	35	3.86	sw.	13.0	819	0	
						750	921.6	9.1	.....	36	4.16	sw.	11.8	735	0	
						500	949.6	11.1	.....	40	5.28	sw.	8.2	490	0	
3:26	981.9	12.0	42	sw.	6.7	396	961.9	12.0	.....	42	5.89	sw.	6.7	388	.....	2/10A.Cu.,wnw.;8/10A.St.,wnw.

November 10, 1916.

A. M.																
7:43	966.8	5.0	89	nnw.	4.5	396	966.8	5.0	.....	89	7.76	nnw.	4.5	388	.....	9/10 St., n.
						500	954.5	4.8	.....	91	7.83	nnw.	7.7	490	240	
						750	926.0	4.3	.....	95	7.89	nnw.	15.4	735	820	
7:52	967.2	5.7	90	nnw.	4.9	807	919.7	4.2	0.20	96	7.92	nnw.	17.2	791	950	St. base at about 800m.; 10/10
						1,000	898.3	2.8	.....	93	6.95	nnw.	16.9	980	3,170	St., n.
8:06	967.7	6.3	87	nnw.	3.6	1,246	871.7	1.1	0.71	89	5.89	nnw.	16.5	1,222	6,000	
						1,500	844.0	−0.2	.....	83	4.99	nnw.	15.6	1,470	6,420	9/10 St.Cu., n.
						1,750	818.1	−1.4	.....	77	4.19	nnw.	14.6	1,715	7,640	6/10 A.Cu., n.; 3/10 St.Cu.,n.
						2,000	793.5	−2.7	.....	71	3.46	nnw.	13.7	1,960	9,080	St.Cu. base at about 1,700 m.;
9:20	969.3	5.8	76	n.	7.6	2,185	776.0	−3.6	0.50	67	3.03	nnw.	13.0	2,239	10,140	4/10 St.Cu., n.
						2,250	769.6	−3.6	.....	64	2.89	nnw.	14.0	2,205	10,510	
						2,500	746.0	−3.6	.....	55	2.49	nw.	17.6	2,450	11,940	
9:30	969.6	6.0	76	n.	7.2	2,690	728.3	−3.6	0.00	47	2.12	nw.	20.4	2,636	13,020	6/10 St.Cu., n.
						2,750	723.3	−3.9	.....	46	2.03	nw.	20.8	2,694	13,360	
						3,000	700.8	−5.3	.....	44	1.72	nw.	22.2	2,939	14,630	
						3,250	678.1	−6.6	.....	41	1.44	wnw.	23.7	3,184	15,270	
9:51	970.3	6.3	72	n.	6.7	3,484	657.9	−7.9	0.46	39	1.22	wnw.	25.1	3,413	.....	
						3,250	677.8	−7.0	.....	42	1.42	wnw.	22.6	3,184	14,310	10/10 St.Cu., n.
						3,000	700.0	−6.0	.....	44	1.62	wnw.	19.9	2,939	12,050	Weather threatening.
10:13	970.8	5.4	73	n.	5.8	2,770	720.4	−5.1	0.00	47	1.87	wnw.	17.4	2,714	9,970	St.Cu. base at about 900m.
						2,750	722.2	−5.1	.....	47	1.87	wnw.	16.9	2,694	9,790	
						2,500	745.3	−5.1	.....	49	1.95	nw.	11.1	2,450	7,530	
10:18	970.9	5.2	75	n.	6.7	2,386	756.6	−5.1	0.44	50	1.99	nw.	8.4	2,338	6,500	
						2,250	769.6	−4.5	.....	53	2.22	nw.	8.7	2,205	5,990	St.Cu. base at about 900m.
						2,000	794.2	−3.4	.....	59	2.71	nnw.	9.1	1,960	5,060	
						1,750	820.1	−2.3	.....	64	3.23	nnw.	9.6	1,715	4,120	
						1,500	846.1	−1.2	.....	70	3.87	n.	10.1	1,470	3,190	10/10 St.Cu., n.
10:35	971.2	5.1	73	n.	4.9	1,368	860.6	−0.6	−0.58	73	4.24	n.	10.3	1,341	2,690	
						1,250	874.1	−1.3	.....	87	4.77	n.	10.5	1,225	2,250	St.Cu. base at about 900m.
10:39	971.2	5.2	72	n.	4.9	1,195	879.3	−1.6	0.46	94	5.03	n.	10.6	1,172	2,050	
						1,000	901.5	−0.7	.....	89	5.13	n.	12.1	980	1,320	St. Cu. base at about 1,000m
10:50	971.4	5.2	70	n.	6.7	806	923.5	0.2	1.21	84	5.21	n.	13.5	790	590	
						750	930.0	0.9	.....	82	5.35	n.	12.5	735	510	
						500	959.3	3.9	.....	74	5.98	n.	8.1	490	150	
10:59	971.6	5.2	70	n.	6.3	396	971.6	5.2	.....	70	6.20	n.	6.3	388	.....	10/10 St. Cu., n.

November 11, 1916 (No. 1).

A. M.																
10:13	983.2	−4.8	84	nne.	7.6	396	983.2	−4.8	.....	84	3.43	nne.	7.6	388	.....	10/10 St., nne. Light snow.
						500	969.9	−5.6	.....	86	3.28	nne.	9.3	490	0	
						750	939.2	−7.6	.....	91	2.92	nne.	13.6	735	0	St. base about 700m.
10:24	983.3	−4.8	83	nne.	7.6	818	931.6	−8.1	0.78	93	2.82	nne.	14.7	802	130	
						1,000	910.0	−7.5	.....	86	2.78	nne.	11.7	980	700	
						1,250	881.5	−6.7	.....	78	2.71	ne.	7.6	1,225	1,810	
11:12	983.4	−5.0	86	nne.	7.6	1,360	869.2	−6.3	−0.33	74	2.66	ne.	5.8	1,333	3,070	
						1,500	854.0	−6.7	.....	80	2.78	ne.	5.1	1,470	3,520	
						1,750	827.2	−7.3	.....	90	2.96	ne.	3.7	1,715	2,560	
11:21	983.4	−5.0	87	nne.	8.0	1,791	822.5	−7.4	0.22	92	3.00	ne.	3.5	1,755	2,400	Ice on kites and wire.
						1,750	827.2	−7.3	.....	91	2.99	ne.	3.7	1,715	2,710	
						1,500	854.0	−6.9	.....	85	2.90	ne.	4.8	1,470	4,590	
11:40	983.4	−4.8	86	nne.	7.2	1,401	884.3	−6.7	−0.35	83	2.88	ne.	5.2	1,373	5,330	
						1,250	881.5	−7.2	.....	86	2.86	ne.	7.3	1,225	5,250	
						1,000	909.8	−8.0	.....	91	2.82	nne.	10.3	980	3,350	
11:53	983.1	−4.8	85	nne.	7.6	880	924.0	−8.5	0.76	94	2.84	nne.	12.3	863	2,160	
						750	938.6	−7.5	.....	92	2.97	nne.	11.0	735	950	
						500	969.9	−5.6	.....	88	3.35	nne.	8.6	490	280	St. base about 700m.
P. M.																
12:05	983.0	−4.8	86	nne.	7.6	396	983.0	−4.8	.....	86	3.51	nne.	7.6	388	.....	10/10 St., nne. Light snow.

TABLE 9.—*Free-air data from kite flights at Drexel Aerological Station, November, 1916*—Continued.

November 11, 1916 (No. 2).

Surface.						At different heights above sea.										
Time.	Pressure.	Temperature.	Relative humidity.	Wind.		Altitude.	Pressure.	Temperature.	$\frac{\Delta t}{100\ m.}$	Humidity.		Wind.		Potential.		Remarks.
				Dir.	Vel.					Rel.	Vap. pres.	Dir.	Vel.	Gravity.	Electric.	
P. M.	*mb.*	*°C.*	*%*		*m. p. s.*	*m.*	*mb.*	*°C.*		*%*	*mb.*		*m. p. s.*	*10^3 ergs.*	*volts.*	
1:38	981.5	−4.2	80	nne.	8.9	396	981.5	−4.2		80	3.44	nne.	8.9	388		10/10 St., nne.
						500	968.8	−4.9		83	3.36	nne.	9.5	490	850	
1:43	981.5	−4.1	80	nne.	8.0	750	938.1	−6.5		91	3.21	nne.	11.0	735	2,890	St. base about 800m.
						899	920.4	−7.5	−0.66	95	3.07	nne.	11.9	881	4,060	
1:47	981.5	−4.1	80	ne.	8.9	1,000	908.8	−7.1		95	3.18	nne.	11.9	980	4,820	
						1,160	890.2	−6.4	−0.42	94	3.35	ne.	11.9	1,137	6,030	
						1,250	880.9	−6.5		94	3.31	ne.	11.3	1,225	6,520	St. base about 800m.
						1,500	852.1	−6.7		94	3.26	ne.	9.5	1,470	7,720	
						1,750	825.1	−7.0		94	3.18	ne.	7.7	1,715	8,770	
						2,000	798.4	−7.2		94	3.12	ne.	6.0	1,960		10/10 St., ne.
						2,250	773.4	−7.5		94	3.04	ne.	4.2	2,205		
2:37	981.2	−4.0	80	ne.	8.9	2,290	769.7	−7.5	0.08	94	3.04	ne.	3.9	2,244		
						2,250	773.4	−7.5		94	3.04	ne.	4.1	2,205		Ice on wire.
						2,000	798.2	−7.3		94	3.09	ne.	5.5	1,960		
						1,750	824.4	−7.1		94	3.15	nne.	6.9	1,715	8,990	
						1,500	851.7	−6.9		94	3.21	nne.	8.3	1,470	7,940	
3:04	981.1	−4.0	77	ne.	8.0	1,267	877.7	−6.8	−0.55	94	3.23	nne.	9.6	1,242	6,170	10/10 St., nne.
						1,250	879.4	−6.9		94	3.21	nne.	9.6	1,225	6,040	
3:11	981.1	−4.0	77	ne.	8.9	1,047	902.7	−8.0	0.32	94	2.91	nne.	10.0	1,027	4,210	St. base about 800m.
						1,000	907.6	−7.9		94	2.93	nne.	9.8	980	3,880	
3:20	981.1	−4.0	77	ne.	8.0	768	935.7	−7.1	0.81	92	3.08	nne.	8.9	753	1,040	
						750	937.6	−7.0		91	3.08	nne.	8.9	735	990	
						500	968.1	−4.9		83	3.36	nne.	8.3	490	200	
3:24	981.1	−4.1	80	nne.	8.0	396	981.1	−4.1		80	3.46	nne.	8.0	388		10/10 St., nne.

November 12, 1916.

A. M.																
9:48	981.4	−6.4	89	nne.	5.4	396	981.4	−6.4		89	3.17	nne.		388		Light snow began during night.
						500	967.6	−7.3		91	2.99	nne.		490	500	
9:51	981.4	−6.4	92	nne.	6.7	750	936.6	−9.4		95	2.60	nne.		735	730	3/10 St., e.; 7/10 St., nne.
						780	934.0	−9.6	−0.83	96	2.58	nne.		765	775	
9:57	981.4	−6.4	90	ne.	6.7	1,000	907.1	−10.0		94	2.44	ne.		980	1,855	
10:00	981.4	−6.4	89	ne.	6.7	1,026	904.8	−10.1	−0.23	94	2.42	ne.		1,006	1,975	
						1,134	892.2	−8.8	0.12	94	2.72	ene.		1,112	2,500	
						1,250	879.3	−8.8		94	2.72	ene.		1,225	1,970	
						1,500	850.2	−8.9		94	2.69	e.		1,470	4,850	
11:26	981.3	−6.0	89	nne.	5.8	1,750	824.1	−9.0		94	2.67	e.		1,715	4,370	
						1,840	814.4	−9.0	−0.02	94	2.67	e.		1,803	4,200	
						1,750	824.1	−9.0		94	2.67	e.		1,715	4,170	
						1,500	850.7	−8.9		94	2.69	ene.		1,470	3,830	
P. M.						1,260	878.5	−8.9		94	2.69	ene.		1,225	1,940	
12:01	981.1	−5.8	89	nne.	4.9	1,198	884.7	−8.9	1.14	94	2.69	ene.		1,174	1,620	
12:07	981.0	−5.9	87	nne.	4.9	1,066	899.8	−10.4	−0.36	92	2.31	ne.		1,045	810	
						1,000	907.1	−10.2		92	2.35	ne.		980	665	
						750	937.3	−9.3		92	2.54	ne.		735	110	
12:13	981.0	−6.0	85	ne.	6.3	734	939.2	−9.2	−1.37	92	2.57	ne.		720	0	Light snow.
						500	967.6	−7.0		87	2.94	nne.		490	0	
12:24	981.0	−6.0	85	nne.	7.6	396	981.0	−6.0		85	3.13	nne.		388		3 St., e.; 7 St., nne.

November 13, 1916, series (No. 1).

A. M.																
8:27	985.8	−11.8	86	nnw.	5.4	396	985.8	−11.8		86	1.90	nnw.	5.4	388		
						500	972.2	−12.7		86	1.71	nnw.	8.1	490	270	A halo ended 8:31 a. m.
						750	940.5	−14.8		87	1.46	n.	14.5	735	910	1/10 Ci., wsw.
8:38	985.8	−11.5	82	n.	5.4	776	937.8	−15.0	0.84	87	1.44	n.	15.2	761	980	Few Ci., wsw.
						1,000	910.0	−16.1		85	1.27	n.	15.2	980	3,370	
8:49	985.8	−11.2	79	n.	6.7	1,056	903.7	−16.4	0.50	85	1.23	n.	15.2	1,035	3,960	
						1,250	880.9	−15.7		65	1.03	n.	15.2	1,225	5,640	
9:01	985.8	−11.0	74	n.	5.4	1,351	869.1	−15.4	−0.34	55	0.87	n.	15.2	1,324	6,200	
						1,500	852.1	−15.9		60	0.91	n.	14.5	1,470	7,040	
						1,750	824.3	−16.8		70	0.97	nnw.	13.2	1,715	7,940	Cloudless.
						2,000	796.8	−17.7		79	1.01	nnw.	12.0	1,960	9,420	
9:35	985.8	−10.8	71	n.	6.3	2,165	779.8	−18.2	0.34	85	1.04	nnw.	11.2	2,122	10,900	
						2,250	770.4	−18.2		84	1.02	nnw.	11.5	2,205	11,670	
						2,500	745.2	−18.2		83	1.01	nw.	12.4	2,450	13,020	
10:02	985.8	−10.6	69	n.	6.7	2,599	735.8	−18.2	0.00	82	1.00	nw.	12.8	2,547	13,500	
						2,750	720.9	−17.9		83	1.05	nw.	12.6	2,694	13,980	
						3,000	697.1	−17.3		86	1.14	wnw.	12.3	2,939	14,760	
						3,250	674.0	−16.8		88	1.22	w.	11.9	3,184	15,000	
10:30	985.8	−10.3	65	n.	7.2	3,286	671.4	−16.7	−0.22	88	1.24	w.	11.9	3,219	15,000	
						3,500	651.8	−16.9		87	1.20	w.	15.1	3,429	15,000	
						3,750	630.8	−17.1		86	1.14	wsw.	18.7	3,673	15,790	
11:21	985.6	−10.2	61	n.	6.7	3,945	614.8	−17.3	0.09	85	1.13	wsw.	21.6	3,864	16,840	
						4,000	610.0	−17.5		83	1.08	wsw.		3,918	17,140	
						4,250	589.8	−18.6		76	0.90	wsw.		4,162	18,490	
						4,500	570.3	−19.7		69	0.73	wsw.		4,407		
11:30	985.5	−10.2	61	n.	7.6	4,600	556.1	−20.5	0.29	63	0.62	wsw.		4,593		
						4,500	570.3	−20.2		69	0.70	wsw.		4,407		
						4,250	589.3	−19.8		77	0.81	w.		4,162	16,570	Cloudless.
						4,000	609.0	−19.4		85	0.93	w.		3,918	15,890	
P. M.																
1:10	984.4	− 9.7	63	nnw.	5.8	3,905	616.9	−19.3	0.11	88	0.97	w.	19.9	3,825	15,630	
						3,750	629.3	−19.1		84	0.94	w.	19.2	3,673	15,210	
						3,500	650.4	−18.9		77	0.88	w.	18.1	3,429	14,520	
1:30	984.2	− 9.7	66	nnw.	5.8	3,248	673.5	−18.6	−0.07	70	0.83	w.	16.9	3,182	14,030	1/10 A. Cu., sw.
						3,000	695.9	−18.8		71	0.82	wnw.	15.6	2,939	13,550	
						2,750	719.6	−19.0		71	0.80	wnw.	14.3	2,694	13,070	
1:48	983.9	− 9.8	62	nnw.	4.9	2,543	740.2	−19.1	0.30	72	0.81	nw.	13.2	2,492	12,310	

TABLE 9.—*Free-air data from kite flights at Drexel Aerological Station, November, 1916*—Continued.

November 13, 1916, series (No. 1)—Continued.

Surface.						At different heights above sea.										Remarks.
Time.	Pressure.	Temperature.	Relative humidity.	Wind.		Altitude.	Pressure.	Temperature.	$\frac{\Delta t}{100 m.}$	Humidity.		Wind.		Potential.		
				Dir.	Vel.					Rel.	Vap. pres.	Dir.	Vel.	Gravity.	Electric.	
P. M.	*mb.*	°*C.*	%		*m. p. s.*	*m.*	*mb.*	°*C.*		%	*mb.*		*m. p. s.*	*10^4 ergs.*	*volts.*	
						2,500	744.5	−19.0		71	0.80	nw.	13.3	2,450	12,390	
						2,250	770.4	−18.2		69	0.84	nw.	13.6	2,205	11,720	
						2,000	796.8	−17.5		66	0.86	nnw.	13.9	1,960	10,630	
						1,750	824.3	−16.7		63	0.89	nnw.	14.2	1,715	9,430	
2:08	983.8	− 9.6	61	nnw.	6.7	1,702	828.3	−16.6	0.13	62	0.88	nnw.	14.3	1,668	9,200	3/10 Cl.St., sw.
						1,500	851.4	−16.3		67	0.98	nnw.	13.7	1,470	7,310	
2:18	983.7	− 9.6	61	nnw.	5.4	1,253	878.9	−16.0	0.52	74	1.11	nnw.	12.9	1,228	5,000	4/10 Cl.St., sw.
						1,000	908.6	−14.7		76	1.29	nnw.	11.4	980	2,920	
2:32	983.6	− 9.6	58	nnw.	4.5	772	936.5	−13.5	1.04	77	1.46	nnw.	10.1	757	1,040	
						750	939.2	−13.3		76	1.47	nnw.	9.8	735	980	
						500	970.2	−10.7		65	1.59	nnw.	6.7	490	290	
2:38	983.6	− 9.6	61	nnw.	5.4	396	983.6	− 9.6		61	1.64	nnw.	5.4	388		

November 13, 1916, series (No. 2).

P. M.																
3:14	983.5	−9.8	64	nnw.	5.4	396	983.5	−9.8		64	1.69	nnw.	5.4	388		2/10 Cl.St., sw
						500	970.3	−11.0		66	1.56	nnw.	6.9	490	310	1/10 Cl.St., sw.
3:26	983.5	−9.8	64	nnw.	5.8	705	944.5	−13.3	1.13	70	1.35	nnw.	9.6	691	920	Few Cl.St., sw.
						750	938.4	−13.6		70	1.32	nnw.	9.7	735	1,330	
						1,000	908.0	−15.4		73	1.16	nw.	10.4	980	3,600	
3:38	983.5	−9.8	68	nnw.	4.0	1,153	890.1	−16.6	0.75	75	1.07	nw.	10.8	1,130	5,000	
						1,250	878.7	−16.2		69	1.05	nw.	12.5	1,225	5,580	
3:48	983.5	−9.8	70	nnw.	3.6	1,378	864.1	−15.5	−0.49	62	0.97	nw.	14.8	1,351	6,350	
						1,500	849.4	−15.7		61	0.95	nw.	14.8	1,470	7,090	
3:59	983.5	−9.9	67	nw.	3.6	1,710	826.8	−16.1	0.28	60	0.89	nw.	14.8	1,676	8,300	Cloudless.
						1,750	822.0	−16.2		60	0.89	nw.	14.8	1,715	8,600	
						2,000	795.2	−17.0		60	0.82	nw.	14.6	1,960	10,080	
						2,250	769.8	−17.8		59	0.75	nw.	14.4	2,205	11,580	
4:13	983.5	−10.2	70	nw.	4.5	2,321	762.1	−18.0	0.31	59	0.73	nw	14.3	2,274	12,000	
						2,500	744.1	−18.4		59	0.71	nw.	14.7	2,450	12,560	
						2,750	719.1	−19.0		60	0.68	wnw.	15.2	2,694	13,350	
4:33	983.5	−10.6	67	nw.	4.9	2,956	699.6	−19.5	0.25	60	0.65	wnw.	15.6	2,896	14,000	
						3,000	695.3	−19.3		61	0.67	wnw.	16.0	2,939	14,280	
4:50	983.5	−11.1	71	nw.	5.4	3,062	689.8	−19.0	0.47	63	0.71	wnw.	16.5	3,000	14,680	
						3,250	672.9	−19.5		61	0.67	wnw.	16.8	3,184	15,530	
						3,500	650.6	−20.1		58	0.59	w.	17.2	3,429		
5:14	983.4	−11.8	72	nw.	4.0	3,612	640.6	−20.4	0.24	57	0.56	w.	17.4	3,538		
						3,500	650.6	−20.1		56	0.57	w.	17.2	3,429		
						3,250	672.2	−19.5		53	0.57	wnw.	16.7	3,184		
5:26	983.3	−12.0	76	nw.	4.9	3,201	676.8	−19.4	−0.22	53	0.58	wnw.	16.6	3,136		
						3,000	694.7	−19.8		55	0.58	wnw.	16.6	2,939		
5:33	983.3	−12.1	79	nw.	4.0	2,920	702.9	−20.0	0.23	57	0.59	wnw.	16.6	2,861		
						2,750	718.6	−19.6		57	0.61	wnw.	17.4	2,694		
						2,500	743.3	−19.1		57	0.64	wnw.	18.6	2,450		
5:51	983.2	−12.8	84	nw.	2.7	2,340	759.8	−18.7	0.37	57	0.66	wnw.	19.3	2,293	9,950	
						2,250	768.9	−18.4		57	0.68	wnw.	18.8	2,205	9,350	
						2,000	795.0	−17.5		56	0.73	nw.	17.6	1,960	7,690	
						1,750	822.0	−16.5		56	0.80	nw.	16.3	1,715	6,040	
6:04	983.1	−13.0	84	nw.	2.2	1,685	829.2	−16.3	0.30	56	0.82	nw.	16.0	1,652	5,600	
						1,500	849.4	−15.7		56	0.87	nw.	14.0	1,470	4,360	
						1,250	878.5	−15.0		57	0.94	nw.	11.5	1,225	2,670	
						1,000	908.0	−14.3		57	1.00	nw.	8.9	980	1,370	
6:23	983.0	−13.5	83	wnw.	1.3	979	910.2	−14.2	−0.12	57	1.01	nw.	8.7	960	1,260	
						750	938.0	−14.4		71	1.24	wnw.	8.7	735	110	
6:31	982.9	−13.4	83	nw.	1.3	728	940.7	−14.5	0.15	72	1.25	wnw.	8.7	714	0	
						500	969.2	−14.2		79	1.40	wnw.	4.0	490	0	
6:37	982.8	−14.0	82	wnw.	1.8	396	982.8	−14.0		82	1.48	wnw.	1.8	388		Cloudless.

November 13–14, 1916, series (No. 3).

P. M.																
9:56	981.8	−15.4	90	wsw.	7.6	396	981.8	−15.4		90	1.43	wsw.	7.6	388		Cloudless.
						500	968.2	−13.7		89	1.66	wsw.	9.5	490	0	
10:00	981.8	−15.4	90	wsw.	8.0	515	966.5	−13.5	−1.60	89	1.68	wsw.	9.8	505	0	
						750	937.3	−13.8		82	1.51	wsw.	10.7	735	0	
						1,000	908.0	−14.1		75	1.34	w.	11.7	980	1,230	
10:18	981.6	−15.2	90	wsw.	8.0	1,010	905.3	−14.1	0.12	75	1.34	w.	11.7	990	1,280	
						1,250	877.2	−15.0		73	1.20	w.	11.1	1,225	2,005	
						1,500	848.5	−15.9		72	1.09	w.	10.5	1,470	3,725	
						1,750	821.0	−16.8		70	0.97	w.	9.9	1,715	4,950	
10:56	981.1	−15.2	90	sw.	8.5	1,853	809.2	−17.2	0.37	69	0.92	w.	9.7	1,816	5,400	
						2,000	793.0	−17.0		63	0.86	w.	10.1	1,930	7,100	
2:13	980.0	−15.4	89	sw.	9.4	2,248	766.7	−16.6	−0.15	52	0.74	wsw.	10.8	2,203		
						2,500	740.7	−16.6		49	0.70	wsw.	12.3	2,450		
						2,750	717.0	−16.6		45	0.64	wsw.	13.9	2,694		
A. M.																
2:34	979.9	−15.4	90	sw.	10.3	2,984	695.3	−16.6	0.01	42	0.60	wsw.	15.3	2,924		
						2,750	717.0	−16.6		43	0.61	wsw.	13.9	2,694		
						2,500	740.7	−16.5		45	0.64	wsw.	12.5	2,450		
						2,250	766.1	−16.5		46	0.66	wsw.	11.0	2,205		
						2,000	792.4	−16.4		47	0.68	wsw.	9.5	1,960	7,280	
2:55	979.7	−15.5	90	sw.	9.4	1,841	809.2	−16.4	0.10	48	0.70	wsw.	8.6	1,804	6,290	
						1,750	819.4	−16.3		48	0.70	wsw.	9.1	1,715	5,730	
						1,500	846.9	−16.0		47	0.70	wsw.	10.3	1,470	4,170	
3:13	979.6	−15.5	90	wsw.	10.3	1,462	850.9	−16.0	0.35	47	0.70	wsw.	10.5	1,433	3,930	
						1,250	875.4	−15.3		49	0.78	wsw.	9.6	1,225	3,030	
3:21	979.5	−15.6	91	wsw.	9.8	1,003	904.0	−14.4	0.09	51	0.89	wsw.	8.5	983	2,160	
						750	935.0	−14.2		62	1.10	w.	6.5	735	1,260	
3:38	979.3	−16.0	95	wsw.	7.2	668	944.6	−14.1	−0.77	66	1.18	w.	5.8	655	970	
						500	966.2	−15.4		84	1.34	wsw.	6.7	490	370	
3:51	979.2	−16.2	95	sw.	7.2	396	979.2	−16.2		95	1.41	sw.	7.2	388		Cloudless.

TABLE 9.—*Free-air data from kite flights at Drexel Aerological Station, November, 1916*—Continued.

November 14, 1916, series (No. 4).

Surface.						At different heights above sea.											
Time.	Pressure.	Temperature.	Relative humidity.	Wind.		Altitude.	Pressure.	Temperature.	$\frac{\Delta t}{100 m.}$	Humidity.		Wind.		Potential.		Remarks.
				Dir.	Vel.					Rel.	Vap. pres.	Dir.	Vel.	Gravity.	Electric.	
A. M.	*mb.*	°*C.*	%		*m. p. s.*	*m.*	*mb.*	°*C.*		%	*mb.*		*m. p. s.*	10^5 *ergs.*	*volts.*	
4:54	979.4	−17.0	100	sw.	3.1	396	979.4	−17.0	.....	100	1.37	sw.	3.1	388	.....	Cloudless.
						500	966.2	−16.3	.....	90	1.31	w.	5.1	490	0	
5:17	979.4	−17.4	100	w.	2.7	509	957.1	−15.8	−0.69	83	1.27	nw.	6.5	558	0	
						750	934.2	−15.4	.....	74	1.18	nw.	7.3	735	970	
						1,000	903.5	−14.9	.....	61	1.02	wnw.	8.4	980	2,300	
						1,250	874.7	−14.4	.....	49	0.85	wnw.	9.6	1,225	4,520	
6:57	979.4	−18.4	100	nw.	2.7	1,321	866.2	−14.3	−0.20	45	0.79	wnw.	9.9	1,295	5,160	
						1,500	845.8	−14.6	.....	43	0.74	wnw.	11.2	1,470	6,800	
						1,750	818.1	−14.9	.....	41	0.68	wnw.	12.9	1,715	9,080	
7:10	979.4	−18.6	100	nw.	2.7	1,961	795.8	−15.2	0.14	39	0.63	wnw.	14.4	1,922	11,000	
						2,000	791.3	−15.2	.....	39	0.63	wnw.	14.4	1,960	11,000	
						2,250	765.9	−15.3	.....	40	0.64	nw.	14.4	2,205	15,890	
7:42	979.6	−18.4	99	nw.	2.2	2,356	755.7	−15.4	0.05	40	0.64	nw.	14.4	2,309	17,270	
						2,500	741.1	−15.7	.....	40	0.62	nw.	14.7	2,450	17,950	
						2,750	717.5	−16.2	.....	39	0.58	nw.	15.4	2,694	19,150	
						3,000	694.7	−16.7	.....	39	0.55	wnw.	16.0	2,939	20,630	
						3,250	672.5	−17.3	.....	38	0.51	wnw.	16.6	3,184	22,840	
8:17	979.8	−17.4	90	nw.	2.7	3,268	669.4	−17.3	0.21	38	0.51	wnw.	16.6	3,201	23,000	
						3,500	650.4	−18.0	.....	41	0.51	wnw.	16.7	3,429	23,890	
						3,750	628.8	−18.7	.....	43	0.50	wnw.	16.9	3,673	24,840	
						4,000	607.4	−19.5	.....	46	0.50	wnw.	17.0	3,918	25,790	
						4,250	586.9	−20.2	.....	49	0.49	wnw.	17.2	4,162	.....	
9:33	980.1	−15.3	81	nw.	3.1	4,279	584.8	−20.3	0.26	49	0.49	wnw.	17.2	4,191	.....	
						4,250	586.9	−20.2	.....	48	0.48	wnw.	17.3	4,162	.....	
						4,000	607.4	−19.7	.....	43	0.46	wnw.	18.0	3,918	25,240	
						3,750	628.8	−19.1	.....	38	0.43	nw.	18.7	3,673	21,720	
						3,500	649.8	−18.5	.....	32	0.38	nw.	19.4	3,429	18,200	
9:57	980.1	−14.8	72	wnw.	3.1	3,486	650.1	−18.5	0.19	32	0.38	nw.	19.4	3,415	18,000	
						3,250	672.5	−18.1	.....	34	0.42	nw.	18.4	3,184	16,590	
						3,000	695.2	−17.6	.....	36	0.46	nw.	17.3	2,939	15,100	
						2,750	719.0	−17.1	.....	39	0.53	nw.	16.3	2,694	13,470	
						2,500	743.0	−16.6	.....	41	0.58	nw.	15.2	2,450	11,830	
10:30	980.1	−13.6	79	wnw.	3.1	2,373	754.5	−16.4	0.37	42	0.61	nw.	14.7	2,325	11,000	
						2,250	767.8	−15.9	.....	42	0.64	nw.	14.3	2,205	11,000	
						2,000	793.0	−15.0	.....	43	0.71	nw.	13.5	1,960	9,830	
						1,750	819.8	−14.1	.....	44	0.79	nw.	12.7	1,715	7,240	
10:51	980.1	−12.2	69	w.	4.0	1,592	837.0	−13.5	−0.10	44	0.83	nw.	12.2	1,560	5,600	
						1,500	847.8	−13.8	.....	42	0.77	nw.	11.8	1,470	4,920	
10:59	980.1	−11.8	65	wnw.	4.0	1,388	860.0	−14.2	0.00	40	0.71	nw.	11.3	1,361	4,090	
						1,250	876.7	−14.2	.....	43	0.77	nw.	10.4	1,225	3,155	
						1,000	906.1	−14.2	.....	48	0.85	nw.	8.8	980	1,935	
						750	936.6	−14.2	.....	53	0.94	nw.	7.1	735	900	
11:34	980.1	−10.6	62	wnw.	4.9	681	944.3	−14.2	1.33	54	0.96	nw.	6.7	668	790	Cloudless.
						500	967.1	−11.8	.....	57	1.26	wnw.	5.0	490	290	
11:39	980.1	−10.4	59	wnw.	4.0	396	980.1	−10.4	.....	59	1.48	wnw.	4.0	388	.....	

November 14, 1916, series (No. 5).

P. M.																
12:17	979.9	−10.0	60	wnw.	5.4	396	979.9	−10.0	.....	60	1.55	wnw.	5.4	388	.....	Cloudless.
						500	966.5	−10.8	.....	60	1.45	wnw.	7.3	490	1,020	
12:48	979.5	−8.9	51	wnw.	5.8	708	940.6	−12.4	0.77	59	1.23	wnw.	11.0	694	3,060	
						750	935.1	−12.4	.....	58	1.21	wnw.	11.0	735	3,480	
						1,000	904.4	−12.6	.....	51	1.05	wnw.	10.8	980	5 930	
12:50	979.5	−8.8	51	wnw.	6.3	1,109	892.5	−12.7	0.07	48	0 98	wnw.	10.7	1,087	7.000	
						1,250	876.0	−12.7	.....	46	0.94	wnw.	11.1	1,225	8.740	
						1,500	848.1	−12 8	.....	44	0.89	wnw.	11.7	1,470	8,980	
1:21	979.3	−8.0	47	wnw.	6.3	1,572	839.8	−12 8	0.02	43	0.87	wnw.	11.9	1,541	9,370	
						1,750	820.2	−13.2	.....	45	0.88	wnw.	12.4	1,715	10,000	
						2,000	793.1	−13.8	.....	49	0.93	wnw.	13.2	1,960	10,740	
						2,250	767.4	−14.3	.....	52	0.92	wnw.	13 9	2,205	11,490	
						2,500	742.7	−14 9	.....	55	0 92	wnw.	14.6	2,450	12,930	
						2,750	719.2	−15 5	.....	50	0.93	wnw.	15 3	2,694	14,380	
1:51	979.1	−7.2	42	wnw.	5.4	2,770	717.1	−15 5	0.23	59	0.93	wnw.	15.4	2,714	14,570	
						3,000	693.2	−15.8	.....	57	0.87	wnw.	16.8	2,939	15 890	
						3,250	673.4	−16.2	.....	54	0.80	wnw.	18.4	3,184	17,410	
						3,500	651.4	−16.5	.....	51	0.73	wnw.	20.0	3,429	18,920	
						3,750	630.1	−16 9	.....	49	0.68	wnw.	21.6	3,673	20,430	
2:33	978.9	−7.2	50	wnw.	6.3	3,821	623.7	−17.0	0.18	48	0.66	wnw.	22.0	3,742	.....	
						3,750	630.1	−16.9	.....	49	0.68	wnw.	21.8	3,673	20,430	
						3,500	651.4	−15.3	.....	50	0.73	wnw.	21.1	3.429	18,820	
						3,250	673.4	−15 8	.....	52	0.80	wnw.	20.4	3,184	17,220	
						3,000	693 2	−15.3	.....	54	0.86	w.	19.7	2,939	15,610	
						2,750	719.9	−14.8	.....	56	0.94	w.	19.0	2,694	14,240	
						2,500	743 8	−14.2	.....	58	1.03	w.	18.3	2,450	12,920	
3:10	978.7	−7.0	46	wnw.	5.8	2,393	754.0	−14.0	0.19	59	1.07	w.	18.0	2,345	12,350	
						2,250	768 2	−13.7	.....	58	1.08	w.	17.7	2,205	11,650	
						2,000	793.4	−13.3	.....	55	1.06	w.	17.2	1,960	10,510	
						1,750	820.2	−12 8	.....	53	1.07	wnw.	16.6	1,715	9,370	
3:27	978.6	−6.6	44	wnw.	5.8	1,495	848.2	−12.3	−0.10	50	1.06	wnw.	16.1	1,465	8,200	
						1,250	876.0	−12 5	.....	45	0.93	wnw.	14.0	1,225	6,430	
3:37	978.5	−6.5	50	wnw.	5.8	1,094	893.8	−12.7	0.60	42	0.86	wnw.	12.7	1,073	5,300	
						1,000	904.4	−12 1	.....	45	0.97	wnw.	11.6	980	4,325	
3:45	978.5	−6.6	48	wnw.	6.3	777	931.6	−10.8	1.10	51	1.23	wnw.	9.0	762	2,025	
						750	934.4	−10.5	.....	51	1.26	wnw.	8.8	735	1,745	
						500	965.1	− 7.7	.....	52	1.65	wnw.	6.4	490	440	
3:54	978.4	−6.6	52	wnw.	5.4	396	978.4	− 6.6	.....	52	1.82	wnw.	5.4	388	.....	Cloudless.

TABLE 9.—*Free-air data from kite flights at Drexel Aerological Station, November, 1916*—Continued.

November 14, 1916, series (No. 6).

Surface.						At different heights above sea.										Remarks.
Time.	Pressure.	Temperature.	Relative humidity.	Wind.		Altitude.	Pressure.	Temperature.	$\frac{\Delta t}{100\,m.}$	Humidity.		Wind.		Potential.		
				Dir.	Vel.					Rel.	Vap. pres.	Dir.	Vel.	Gravity.	Electric.	
P. M.	*mb.*	°*C.*	%		*m. p. s.*	*m.*	*mb.*	°*C.*		%	*mb.*		*m. p. s.*	10^5 *ergs.*	*volts.*	
4:29	978.5	−7.0	54	wnw.	4.5	396	978.5	− 7.0	.....	54	1.83	wnw.	4.5	388	.....	Cloudless.
						500	965.3	− 7.9	.....	56	1.75	wnw.	6.1	490	270	
4:40	978.6	−7.2	53	wnw.	5.8	752	934.8	−10.2	0.90	60	1.53	wnw.	10.0	737	920	
						1,000	905.2	−11.0	.....	53	1.26	wnw.	12.5	980	2,520	
4:54	978.7	−7.8	60	wnw.	4.5	1,231	878.3	−11.8	0.33	46	1.02	wnw.	14.8	1,207	4,000	
						1,250	876.6	−11.8	.....	46	1.02	wnw.	14.9	1,225	5,190	
						1,500	847.2	−12.3	.....	52	1.10	wnw.	15.9	1,470	5,940	
						1,750	819.6	−12.8	.....	58	1.17	wnw.	17.0	1,715	7,980	
						2,000	793.3	−13.2	.....	63	1.23	wnw.	18.0	1,930	10,150	
5:17	978.7	−8.6	63	wnw.	4.5	2,249	768.5	−13.7	0.19	69	1.28	wnw.	18.9	2,204	12,300	
						2,500	743.0	−14.2	.....	64	1.14	wnw.	20.0	2,450	13,440	
						2,750	719.1	−14.7	.....	60	1.02	wnw.	23.1	2,694	14,600	
5:42	978.7	−9.0	66	wnw.	3.6	2,917	703.8	−15.0	0.19	57	0.94	wnw.	24.5	2 858	16,820	
						3,000	796.1	−14.9	.....	51	0.85	wnw.	23.9	2,939	17,970	
5:55	978.7	−9.6	71	wnw.	2.7	3,107	688.3	−14.7	0.24	44	0.75	wnw.	23.1	3,044	.....	
						3,000	796.1	−15.0	.....	46	0.76	wnw.	23.4	2,939	18,110	
6:12	978.6	−9.8	74	wnw.	3.6	2,881	707.1	−15.4	0.27	48	0.76	wnw.	23.8	2,823	17,140	
						2,750	720.3	−15.0	.....	52	0.86	wnw.	23.9	2,694	16,080	
						2,500	744.1	−14.4	.....	60	1.04	wnw.	24.1	2,450	14,070	
						2,250	768.1	−13.7	.....	69	1.28	wnw.	24.3	2,205	12,040	
6:50	978.4	−9.8	74	wsw.	2.7	2,145	778.8	−13.4	0.16	72	1.38	wnw.	24.4	2,102	11,200	
						2,000	793.3	−13.2	.....	69	1.36	wnw.	22.8	1,960	9,720	
						1,750	819.6	−12.8	.....	63	1.27	wnw.	20.1	1,715	7,170	
						1,500	847.2	−12.4	.....	57	1.19	wnw.	17.4	1,470	5,280	
7:15	978.4	−9.8	74	wsw.	3.1	1,261	874.6	−12.0	0.49	52	1.13	wnw.	14.8	1,236	3,800	
						1,250	876.1	−11.9	.....	52	1.14	wnw.	14.7	1,225	3,730	
						1,000	905.2	−10.7	.....	57	1.39	w.	12.5	980	2,230	
						750	935.2	− 9.5	.....	62	1.68	w.	10.3	735	810	
7:40	978.4	−9.6	74	wsw.	3.6	519	963.0	− 8.4	−0.97	66	1.97	wsw.	8.2	509	280	
						500	965.3	− 8.6	.....	67	1.97	wsw.	7.5	490	240	
7:42	978.4	−9.6	74	wsw.	3.6	396	978.4	− 9.6	.....	74	1.99	wsw.	3.6	388	.....	Cloudless.

November 15, 1916.

P. M.																
2:19	979.5	−1.9	55	ssw.	4.0	396	979.5	−1.9	.....	55	2.87	ssw.	4.0	388	.....	Cloudless.
						500	966.2	−3.1	.....	58	2.73	ssw.	4.7	490	0	
						750	936.1	−6.0	.....	66	2.43	sw.	6.3	735	1,280	
3:03	979.1	−2.4	58	sw.	4.5	887	919.9	−7.6	1.16	70	2.25	wsw.	7.2	870	2,400	
						1,000	906.2	−6.9	.....	66	2.25	wsw.	8.4	980	2,510	
						1,250	877.9	−4.4	.....	59	2.49	w.	11.0	1,225	3,440	
3:15	978.9	−1.6	54	sw.	4.9	1,489	851.8	−3.0	−0.59	51	2.42	wnw.	13.5	1,460	4,120	
						1,500	850.7	−3.0	.....	51	2.42	wnw.	13.6	1,470	4,160	
						1,750	823.8	−3.8	.....	67	2.97	wnw.	16.1	1,715	5,080	
						2,000	797.8	−4.6	.....	81	3.36	wnw.	18.6	1,960	6,210	
3:33	978.7	−1.9	55	ssw.	5.4	2,074	790.8	−4.8	0.31	86	3.51	wnw.	19.3	2,033	6,520	
						2,250	773.4	−3.7	.....	72	3.23	wnw.	19.1	2,205	7,240	
3:42	978.6	−1.8	55	ssw.	5.8	2,270	771.3	−3.6	−0.61	70	3.16	wnw.	19.1	2,225	7,320	
						2,500	749.4	−4.3	.....	66	2.81	wnw.	20.5	2,450	8,190	
						2,750	726.2	−5.1	.....	62	2.47	wnw.	22.0	2,694	9,400	
						3,000	703.3	−5.9	.....	57	2.11	wnw.	23.4	2,939	12,300	
4:03	978.3	−1.9	57	ssw.	4.9	3,147	690.2	−6.4	0.33	54	1.92	wnw.	24.3	3,083	14,000	
						3,000	703.3	−5.9	.....	57	2.11	wnw.	23.9	2,949	12,670	
						2,750	726.2	−5.1	.....	62	2.47	wnw.	23.2	2,694	11,170	
						2,500	749.4	−4.2	.....	67	2.88	wnw.	22.6	2,450	9,660	
						2,250	773.6	−3.4	.....	72	3.31	wnw.	21.9	2,205	8,160	
4:41	977.9	−2.3	58	ssw.	5.4	2,141	785.0	−3.0	0.22	74	3.52	wnw.	21.6	2,098	7,860	
						2,000	798.1	−2.7	.....	74	3.61	wnw.	20.2	1,960	7,330	
						1,750	824.2	−2.2	.....	73	3.72	wnw.	17.8	1,715	5,890	
						1,500	850.8	−1.6	.....	73	3.91	w.	15.4	1,470	4,450	
4:54	977.8	−2.6	59	ssw.	4.5	1,411	860.3	−1.4	−0.05	73	3.97	w.	14.6	1,383	3,980	
						1,250	877.9	−1.5	.....	70	3.77	wsw.	14.3	1,225	2,570	
5:01	977.7	−2.7	59	s.	4.5	1,030	902.2	−1.6	−0.16	65	3.48	sw.	14.1	1,010	2,320	
						1,000	905.5	−2.1	.....	65	3.33	sw.	13.5	980	2,280	
5:02	977.7	−2.7	60	s.	4.5	834	924.9	−4.8	0.41	67	2.73	sw.	10.5	818	1,930	
						750	934.9	−4.5	.....	66	2.77	ssw.	9.2	735	1,680	
						500	965.1	−3.4	.....	65	2.99	ssw.	5.2	490	1,090	
5:13	977.6	−3.0	64	s.	3.6	396	977.6	−3.0	.....	64	3.04	s.	3.6	388	.....	Cloudless.

November 16, 1916.

A. M.																
7:54	971.6	−2.1	79	w.	4.0	396	971.6	− 2.1	.....	79	4.05	w.	4.0	388	.....	2/10 Ci., wsw.
						500	958.9	− 0.8	.....	72	4.11	wnw.	5.6	490	1,000	
						750	929.8	2.4	.....	63	4.57	nw.	9.3	735	1,500	
8:06	971.6	−0.2	78	w.	5.4	775	926.8	2.7	−1.00	62	4.60	nw.	9.7	760	1,550	
						1,000	901.1	2.9	.....	51	3.84	nw.	11.9	980	2,610	
8:20	971.7	0.3	72	w.	5.4	1,254	873.8	3.1	−0.08	38	2.90	nnw.	14.3	1,229	3,800	
						1,500	847.8	2.6	.....	33	2.43	nnw.	14.4	1,470	4,130	
8:31	971.8	0.7	70	w.	5.4	1,695	827.4	2.2	0.20	29	2.08	nnw.	14.4	1,661	4,590	7/10 Ci., wsw.; 2/10 Ci.St., wsw.
						1,750	822.2	1.9	.....	29	2.03	nnw.	14.6	1,715	4,810	
						2,000	796.2	0.7	.....	28	1.80	nnw.	15.6	1,960	5,680	
						2,250	771.1	− 0.5	.....	27	1.58	nnw.	16.5	2,205	6,550	
						2,500	747.7	− 1.7	.....	26	1.38	nw.	17.4	2,450	7,510	
						2,750	725.1	− 2.9	.....	25	1.20	nw.	18.4	2,694	8,470	Arc of halo 8:41–9:16.
9:05	972.0	1.5	69	w.	5.8	2,757	724.8	− 2.9	0.48	25	1.20	nw.	18.4	2,701	8,500	4/10 Ci., wsw.
						3,000	702.6	− 4.4	.....	25	1.06	nw.	19.6	2,939	12,040	
						3,250	680.9	− 6.0	.....	25	0.92	nw.	20.8	3,184	13,760	
						3,500	659.2	− 7.5	.....	26	0.81	wnw.	22.0	3,429	15,480	
						3,750	638.7	− 9.1	.....	26	0.73	wnw.	23.2	3,673	17,200	
10:16	972.0	3.1	56	wnw.	6.3	3,988	618.7	−10.5	0.54	26	0.64	wnw.	24.3	3,906	17,500	
						3,750	638.7	− 9.5	.....	38	1.03	wnw	22.8	2,673	14,310	

TABLE 9.—*Free-air data from kite flights at Drexel Aerological Station, November, 1916*—Continued.

November 16, 1916—Continued.

Surface.						At different heights above sea.										
				Wind.					$\frac{\Delta t}{100\ m.}$	Humidity.		Wind.		Potential.		Remarks.
Time.	Pressure.	Temperature.	Relative humidity.	Dir.	Vel.	Altitude.	Pressure.	Temperature.		Rel.	Vap. pres.	Dir.	Vel.	Gravity.	Electric.	
A. M.	*mb.*	*°C.*	%		*m. p. s.*	*m.*	*mb.*	*°C.*		%	*mb.*		*m. p. s.*	*10^5 ergs.*	*volts.*	
						3,500	660.3	−8.4	.....	52	1.55	wnw	21.1	3,420	12,320	
						3,250	682.2	−7.2	.....	66	2.19	wnw	19.3	3,184	10,330	
						3,000	703.8	−6.1	.....	80	2.92	wnw	17.6	2,939	8,340	
11:06	971.9	4.6	61	wnw	4.9	2,824	718.1	−5.3	0.47	90	3.52	wnw.	16.4	2,767	6,700	4/10 Cl.St., w.; 3/10 A.Cu., w.
						2,750	725.9	−4.9	.....	88	3.56	wnw.	16.2	2,694	6,460	
						2,500	747.7	−3.8	.....	83	3.69	nw.	15.5	2,450	5,880	
						2,250	771.1	−2.6	.....	78	3.84	nw.	14.8	2,205	5,310	
						2,000	795.1	−1.4	.....	72	3.92	nw.	14.1	1,960	4,740	
						1,750	820.4	−0.2	.....	67	4.03	nnw.	13.4	1,715	4,160	
11:38	971.6	4.9	59	wnw.	6.3	1,729	823.8	−0.1	0.51	67	4.06	nnw.	13.3	1,695	3,600	1/10 Cl., w.; 4/10 A.Cu., w.
						1,500	846.3	1.1	.....	60	3.97	nnw.	13.0	1,470	3,200	
						1,250	874.0	2.3	.....	53	3.82	nnw.	12.6	1,225	2,420	
11:53	971.4	5.2	59	wnw.	4.9	1,058	895.1	3.3	−0.45	47	3.64	nnw.	12.3	1,037	2,230	
						1,000	901.9	3.0	.....	50	3.79	nnw.	11.6	980	2,170	
						750	930.3	1.7	.....	61	4.22	nnw.	8.6	735	2,200	
P. M.																
12:03	971.3	5.4	61	wnw.	6.7	721	933.2	1.5	1.29	62	4.22	nnw.	8.3	707	1,510	
						500	958.9	4.4	.....	59	4.94	nw.	8.1	490	1,050	
12:09	971.2	5.7	58	wnw.	8.0	396	971.2	5.7	.....	58	5.31	wnw.	8.0	388	.....	2/10 Cl.St., w.; 5/10 A.Cu., w.

November 17, 1916.

A. M.																
7:43	974.3	−0.8	82	nnw.	4.5	396	974.3	−0.8	.....	82	4.68	nnw.	4.5	388	.....	1/10 Ct. St., nnw.
						500	962.2	−0.2	.....	74	4.45	nnw.	6.3	490	570	
7:50	974.3	−0.6	82	nnw.	4.9	739	933.5	1.2	−0.58	57	3.80	n.	10.4	725	835	
						750	932.1	1.1	.....	56	3.70	n.	10.5	735	880	
						1,000	903.1	0.1	.....	45	2.78	n.	13.1	980	1,770	
8:10	974.4	−0.4	87	nnw.	4.5	1,234	877.8	−0.8	0.40	34	1.94	n.	15.5	1,210	2,600	2/10 Cl.St., nne.
						1,250	875.4	−0.9	.....	34	1.93	n.	15.5	1,225	2,650	
						1,500	848.3	−2.1	.....	33	1.69	n.	15.4	1,470	3,320	
						1,750	822.3	−3.0	.....	31	1.47	n.	15.4	1,715	3,980	
8:28	974.6	0.4	78	nnw.	4.5	1,954	801.8	−4.2	0.47	30	1.29	n.	15.3	1,915	4,800	
						2,000	797.2	−4.2	.....	29	1.25	n.	15.5	1,960	4,940	
						2,250	772.6	−4.1	.....	21	0.91	n.	16.8	2,205	5,820	3/10 Cl.St., n
						2,500	748.1	−4.1	.....	14	0.61	n.	18.0	2,450	6,700	
8:55	974.9	0.1	79	nnw.	4.5	2,684	731.0	−4.0	−0.03	9	0.39	n.	18.9	2,630	7,400	
						2,750	724.8	−4.4	.....	9	0.38	n.	18.9	2,694	7,840	
						3,000	701.9	−5.7	.....	9	0.34	n.	19.1	2,939	9,540	
						3,250	680.0	−7.0	.....	10	0.34	n.	19.3	3,184	11,230	2/10 Cl.St., n.
9:26	975.1	0.9	76	nnw.;	4.9	3,418	666.1	−7.9	0.53	10	0.31	n.	19.4	3,348	12,500	6/10 A.Cu., n.
						3,500	659.0	−7.9	.....	9	0.28	n.	19.7	3,429	12,830	
9:51	975.3	1.8	73	nnw.	3.6	3,671	644.7	−7.8	−0.04	7	0.22	n.	19.8	3,596	13,080	2/10 A.Cu., n.
						3,750	638.3	−8.3	.....	7	0.21	n.	19.7	3,673	13,850	
10:22	975.3	3.1	63	nnw.	5.4	3,787	635.2	−8.5	0.58	7	0.21	n.	19.7	3,710	14,000	
						3,750	638.3	−8.3	.....	7	0.21	n.	19.7	3,673	13,700	
						3,500	659.5	−7.0	.....	6	0.21	n.	19.9	3,429	11,720	1/10 Cl., n.
10:43	975.3	3.4	60	nnw.	5.4	3,412	667.2	−6.5	0.11	6	0.21	n.	20.0	3,342	11,000	
						3,250	681.1	−6.7	.....	7	0.24	n.	19.2	3,184	9,740	
10:47	975.3	3.5	59	n.	5.4	3,223	683.4	−6.7	0.45	7	0.24	n.	19.1	3,158	9,500	
						3,000	703.6	−5.7	.....	6	0.23	n.	18.3	2,939	7,760	
						2,750	726.6	−4.6	.....	5	0.21	n.	17.3	2,694	5,770	
						2,500	749.1	−3.5	.....	4	0.18	n.	16.4	2,450	5,080	
						2,250	772.6	−2.4	.....	3	0.15	n.	15.4	2,205	4,400	
11:16	975.3	4.1	57	nnw.	5.4	2,215	776.4	−2.2	0.09	3	0.15	n.	15.3	2,171	4,300	Few Cl., n.
						2,000	797.2	−2.4	.....	4	0.20	n.	14.8	1,960	3,750	
						1,750	823.1	−2.6	.....	6	0.30	n.	14.2	1,715	3,110	
11:35	975.3	4.5	57	nnw.	4.0	1,627	836.2	−2.7	0.34	7	0.34	n.	13.9	1,595	2,800	
						1,500	849.2	−2.3	.....	10	0.50	n.	13.1	1,470	2,540	
						1,250	876.9	−1.4	.....	14	0.76	n.	11.9	1,225	1,750	
						1,000	904.8	−0.6	.....	19	1.10	n.	10.6	980	960	
11:55	975.3	4.8	55	n.	4.9	772	930.9	0.2	1.25	24	1.49	n.	9.4	757	0	
						750	933.3	0.5	.....	26	1.65	n.	9.1	735	0	
						500	963.3	3.6	.....	46	3.64	n.	5.9	490	0	
P. M.																
12:03	975.3	4.9	55	n.	4.5	396	975.3	4.9	.....	55	4.76	n.	4.5	388	.....	Few Cl., n.

November 18, 1916.

A. M.																
7:28	970.6	−2.7	89	sw.	4.5	396	970.6	−2.7	.....	89	4.34	sw.	4.5	388	.....	Cloudless.
						500	958.2	2.9	.....	61	4.59	wsw.	5.3	490	430	
8:05	970.6	−0.4	85	sw.	4.0	502	950.9	6.3	−5.42	45	4.30	wsw.	5.7	551	480	
8:10	970.6	0.0	83	sw.	4.5	707	934.2	8.4	−1.46	43	4.74	wsw.	6.1	693	610	
						750	929.4	8.5	.....	41	4.55	wsw.	6.7	735	650	
						1,000	901.5	8.8	.....	30	3.40	w.	10.0	980	1,360	
						1,250	875.0	9.1	.....	18	2.08	wnw.	13.4	1,225	2,080	
8:45	970.6	2.3	67	sw.	3.1	1,323	867.3	9.2	−0.13	21	2.44	wnw.	14.4	1,297	2,160	
						1,500	848.8	8.9	.....	19	2.17	wnw.	14.1	1,470	2,780	
						1,750	823.1	8.4	.....	14	1.54	nw.	13.8	1,715	4,060	
						2,000	798.5	8.0	.....	9	0.97	nw.	13.4	1,960	5,330	
						2,250	775.5	7.5	.....	4	0.41	nnw.	13.1	2,205	5,560	
9:35	970.6	2.9	71	wsw.	3.1	2,431	758.4	7.2	0.18	1	0.10	nnw	12.8	2,382	5,640	
						2,500	752.4	6.8	.....	1	0.10	nnw.	12.8	2,450	5,780	
						2,750	729.6	5.3	.....	1	0.09	nnw.	12.8	2,694	6,280	
						3,000	707.3	3.7	.....	1	0.08	nnw.	12.7	2,939	6,780	
						3,250	686.0	2.2	.....	1	0.07	nnw.	12.7	3,184	.....	
P. M.																
12:05	969.1	10.7	51	wsw.	5.4	3,450	668.5	1.0	0.62	1	0.07	nnw.	12.7	3,380	.....	
						3,250	685.5	2.2	.....	1	0.07	nnw.	11.5	3,184	.....	
						3,000	706.6	3.5	.....	1	0.08	nnw.	10.2	2,939	4,200	
						2,750	728.0	4.8	.....	1	0.09	nw.	9.0	2,694	3,860	
12:25	968.8	10.0	52	wsw.	4.0	2,547	747.0	6.0	0.53	1	0.09	nw.	7.8	2,496	3,750	
						2,500	750.1	6.2	.....	1	0.09	nw.	7.9	2,450	3,720	

TABLE 9.—*Free-air data from kite flights at Drexel Aerological Station, November, 1916*—Continued.

November 18, 1916—Continued.

Surface.						At different heights above sea.										Remarks.
Time.	Pressure.	Temperature.	Relative humidity.	Wind.		Altitude.	Pressure.	Temperature.	$\frac{\Delta t}{100\ m.}$	Humidity.		Wind.		Potential.		
				Dir.	Vel.					Rel.	Vap. pres.	Dir.	Vel.	Gravity.	Electric.	
P. M.	*mb.*	*°C.*	*%*		*m. p. s.*	*m.*	*mb.*	*°C.*		*%*	*mb.*		*m. p. s.*	*10^3 ergs.*	*volts.*	
						2,250	773.8	7.6	.....	1	0.10	wnw.	8.4	2,205	3,420	
						2,000	797.2	8.9	.....	1	0.11	wnw.	9.0	1,960	3,110	
12:47	968.4	10.8	50	sw.	4.9	1,980	799.9	9.0	0.09	1	0.11	wnw.	9.0	1,941	3,070	
						1,750	822.0	9.2	.....	1	0.12	wnw.	9.5	1,715	2,660	
						1,500	847.1	9.4	.....	1	0.12	wnw.	10.1	1,470	2,260	
						1,250	873.3	9.7	.....	1	0.12	w.	10.7	1,225	1,850	
1:18	967.9	11.4	50	sw.	4.0	1,012	898.6	9.9	−0.40	1	0.12	w.	11.3	992	1,260	
						1,000	900.2	9.9	.....	2	0.24	w.	11.1	980	1,230	
						750	928.0	8.8	.....	13	1.47	w.	7.5	735	610	
1:28	967.7	11.6	49	wsw.	4.0	688	934.2	8.6	1.10	16	1.79	w.	6.6	675	560	
						500	955.9	10.7	.....	38	4.89	sw.	4.9	490	410	
1:34	967.6	11.8	50	sw.	4.0	396	967.6	11.8	.....	50	6.92	sw.	4.0	388	.....	Cloudless.

November 19, 1916.

P. M.																
7:38	966.8	6.4	63	nne.	2.7	396	966.8	6.4	.....	63	6.05	nne.	2.7	388	.....	Few Ci.St., w.
						500	954.9	9.1	.....	50	5.78	nne.	6.7	490	0	
7:40	966.8	6.4	63	nne.	2.7	522	952.1	9.7	−2.62	47	5.65	nne.	7.6	512	0	
						750	926.8	9.4	.....	36	4.24	nne.	5.8	735	0	
8:37	967.1	5.5	66	nne.	3.1	984	900.8	9.2	0.06	25	2.91	nne.	4.0	965	0	
						750	926.8	9.2	.....	29	3.38	nne.	5.0	735	0	
						500	954.9	9.1	.....	37	4.28	nne.	6.1	490	0	
8:51	967.2	5.2	67	nne.	2.7	470	958.5	9.1	−5.27	37	4.28	nne.	6.2	461	0	
8:54	967.2	5.2	67	nne.	2.7	396	967.2	5.2	.....	67	5.93	nne.	2.7	388	.....	Cloudless.

November 20, 1916.

A. M.																
7:48	971.2	−2.0	81	n.	1.8	396	971.2	−2.0	.....	81	4.19	n.	1.8	388	.....	3/10 A.Cu., nw.
						500	958.8	−0.2	.....	70	4.21	n.	4.8	490	0	
7:52	971.2	−2.0	83	n.	1.8	563	950.9	0.9	−1.74	64	4.17	n.	6.6	552	0	
						750	929.3	2.9	.....	51	3.84	n.	6.3	735	200	
8:10	971.3	−1.2	81	n.	2.7	809	922.7	3.5	−1.06	47	3.69	n.	6.2	793	590	
						1,000	901.0	3.7	.....	38	3.02	n.	7.3	980	1,860	
8:15	971.4	−1.0	80	n.	2.7	1,127	887.3	3.9	−0.13	32	2.59	n.	8.1	1,105	2,700	2/10 A.Cu.,nw.
						1,250	874.5	3.9	.....	32	2.59	n.	7.9	1,225	3,470	
						1,500	848.3	3.4	.....	24	1.87	nne.	4.8	1,470	4,700	
						1,750	823.0	2.9	.....	16	1.20	ne.	1.7	1,715	.....	
10:45	972.8	3.5	71	nne.	3.6	1,771	821.2	2.9	0.16	16	1.20	ne.	1.7	1,736	.....	3/10 A.St.,nw.
P. M.																
1:35	972.3	7.1	59	n.	3.6	1,791	818.9	2.6	0.78	28	2.06	ne.	1.9	1,755	.....	2/10 Ci.St.,w.
						1,750	823.0	2.6	.....	29	2.14	ne.	2.3	1,715	.....	Faint 22°-halo, 12:07—12:26.
						1,500	848.3	2.8	.....	35	2.61	ne.	4.7	1,470	2,440	
						1,250	875.1	2.9	.....	41	3.09	nne.	7.1	1,225	2,200	
2:25	972.3	7.8	56	n.	5.8	1,140	887.3	2.9	0.09	43	3.24	nne.	7.9	1,118	1,900	
						1,000	901.4	3.0	.....	48	3.64	nne.	9.0	980	1,330	
2:36	972.3	7.7	51	n.	5.4	812	924.0	3.2	1.06	55	4.23	n.	10.4	796	565	
						750	929.3	3.9	.....	55	4.44	n.	9.7	735	520	
						500	959.2	6.5	.....	54	5.23	n.	6.6	490	350	
2:45	972.3	7.6	54	n.	5.4	396	972.3	7.6	.....	54	5.64	n.	5.4	388	.....	2/10 Ci.St., w.

November 21, 1916.

A. M.																
8:27	982.3	0.0	89	n.	2.7	396	982.3	0.0	.....	89	5.44	n.	2.7	388	.....	10/10 St.Cu.,nne.
						500	969.4	−0.8	.....	95	5.42	nne.	5.2	490	0	
8:43	982.4	0.0	89	n.	3.1	593	958.4	−1.5	0.76	100	5.39	nne.	7.4	581	0	St.Cu base at about 600 m.
						750	939.1	−2.4	.....	100	5.00	nne.	.....	735	640	
						1,000	909.3	−3.7	.....	100	4.48	nne.	.....	980	.....	
11:35	981.6	0.4	85	ne.	4.0	1,118	896.2	−4.4	0.55	100	4.22	nne.	.....	1,096	.....	
						1,250	880.9	−3.6	.....	100	4.52	nne.	.....	1,225	.....	
11:38	981.5	0.4	85	ne.	4.0	1,396	865.2	−2.8	−0.66	100	4.84	nne.	.....	1,369	.....	
						1,250	880.9	−3.9	.....	100	4.41	nne.	.....	1,225	.....	
11:44	981.5	0.4	85	ne.	3.1	1,140	893.7	−4.7	0.50	100	4.12	nne.	.....	1,118	.....	
						1,000	909.3	−4.0	.....	100	4.37	nne.	.....	980	.....	
						750	938.9	−2.7	.....	100	4.88	ne.	.....	735	1,790	St. base at about 650 m.
11:53	981.4	0.4	85	ne.	3.6	585	958.4	−1.9	0.69	100	5.22	ne.	.....	573	1,400	
						500	968.6	−1.3	.....	93	5.10	ne.	.....	490	1,190	
11:59	981.4	0.4	85	ne.	3.6	396	981.4	0.4	.....	85	5.35	ne.	3.6	388	.....	10/10 St.,ne.

November 22, 1916.

P. M.																
1:42	964.5	0.0	92	n.	3.1	396	964.5	0.0	.....	92	5.62	n.	3.1	388	.....	Misting. 10/10 St.,n
						500	951.8	−0.6	.....	94	5.46	n.	4.5	490	360	
						750	922.1	−2.1	.....	99	5.08	n.	7.9	735	540	
1:53	964.3	0.0	91	n.	4.0	820	914.3	−2.5	0.59	100	4.96	n.	8.9	804	590	St. base at about 600 m.
						1,000	893.3	−1.7	.....	100	5.30	n.	7.9	980	3,590	
						1,250	866.1	−0.7	.....	100	5.76	n.	6.6	1,225	4,000	
						1,500	840.0	0.2	.....	100	6.20	nne.	5.2	1,470	4,000	
2:45	963.4	0.0	92	n.	4.0	1,703	818.1	1.2	−0.38	100	6.66	nne.	4.1	1,669	4,000	
						1,500	839.2	0.5	.....	100	6.33	nne.	.....	1,470	3,100	
						1,250	864.9	−0.4	.....	100	5.91	nne.	.....	1,225	2,440	
						1,000	891.9	−1.3	.....	100	5.48	nne.	.....	980	1,770	
3:15	962.9	0.0	98	n.	4.0	798	915.5	−2.0	0.50	100	5.17	nne.	.....	782	260	St. base at about 600 m.
						750	920.1	−1.8	.....	100	5.26	nne.	.....	735	240	
						500	949.6	−0.5	.....	100	5.86	nne.	.....	490	160	10/10 St.,nne.
3:23	962.8	0.0	100	nne.	4.0	396	962.8	0.0	.....	100	6.11	nne.	4.0	388	.....	Misting.

TABLE 9.—*Free-air data from kite flights at Drexel Aerological Station, November, 1916*—Continued.

November 23, 1916 (No. 1).

Surface.						At different heights above sea.										Remarks.
Time.	Pressure.	Temperature.	Relative humidity.	Wind.		Altitude.	Pressure.	Temperature.	Δt / 100 m.	Humidity.		Wind.		Potential.		
				Dir.	Vel.					Rel.	Vap. pres.	Dir.	Vel.	Gravity.	Electric.	
A. M.	*mb.*	*° C.*	%		*m. p. s.*	*m.*	*mb.*	*° C.*		%	*mb.*		*m. p. s.*	*10^5 ergs.*	*volts.*	
7:43	959.1	1.1	76	nnw.	8.0	396	959.1	1.1	.....	76	5.03	nnw.	8.0	388	.....	7/10 St.Cu., nnw.
						500	947.0	0.5	.....	79	5.00	nnw.	11.2	490	560	
						750	917.9	−0.8	.....	87	4.97	nnw.	18.8	735	830	9/10 St.Cu., nnw.
						1,000	889.8	−2.3	.....	95	4.79	nnw.	26.4	980	4,610	
7:54	959.3	2.0	70	nnw.	10.7	1,046	884.4	−2.5	0.55	96	4.76	nnw.	27.8	1,025	5,300	St.Cu., base at about 1,050m.
8:01	959.4	2.0	73	nnw.	13.4	1,151	873.1	2.0	−4.29	68	4.80	nnw.	26.1	1,128	5,090	
8:27	960.2	2.1	78	nnw.	10.7	1,249	863.1	−3.0	2.78	87	4.13	nnw.	.....	1,224	.....	
						1,000	891.3	−1.8	.....	88	4.63	nnw.	.....	980	1,590	10/10 St.Cu., nnw.
9:02	961.2	2.2	79	nnw.	10.3	861	907.1	−1.2	0.73	89	4.92	nnw.	.....	844	1,315	St.Cu., base at about 950m.
						750	920.2	−0.4	.....	86	5.08	nnw.	.....	735	750	
						500	949.2	1.4	.....	79	5.34	nnw.	.....	490	0	
9:23	961.7	2.2	76	nnw.	11.2	396	961.7	2.2	.....	76	5.44	nnw.	11.2	388	.....	10/10 St.Cu., nnw.

November 23, 1916 (No. 2).

P. M.																
2:18	966.5	5.3	59	nnw.	9.4	396	966.5	5.3	.....	59	5.26	nnw.	9.4	388	.....	3/10 St.Cu., nnw.
						500	954.3	4.3	.....	61	5.07	nnw.	.....	490	540	
						750	925.3	1.8	.....	66	4.59	nnw.	.....	735	820	
2:25	966.6	5.2	59	nnw.	11.2	791	920.7	1.4	0.97	67	4.53	nnw.	.....	776	860	
						1,000	896.5	−0.3	.....	67	3.99	nnw.	.....	980	1,630	
						1,250	869.1	−2.3	.....	68	3.43	nnw.	.....	1,225	2,600	
						1,500	842.5	−4.3	.....	68	2.90	nnw.	.....	1,470	3,560	
2:43	966.9	5.1	54	nnw.	13.0	1,514	841.0	−4.4	0.80	68	2.87	nnw.	.....	1,484	3,620	1/10 St.Cu., nnw.
						1,750	816.4	−4.4	.....	46	1.94	nnw.	.....	1,715	4,570	St.Cu., base at about 1,650m.
2:58	967.2	5.0	52	nnw.	8.9	1,950	795.8	−4.4	−0.03	28	1.18	nnw.	.....	1,911	5,500	
						1,750	816.4	−4.5	.....	45	1.89	nnw.	.....	1,715	4,630	
						1,500	843.2	−4.7	.....	65	2.68	nnw.	.....	1,470	4,420	
3:25	967.9	4.8	48	nnw.	8.0	1,466	847.0	−4.7	0.88	68	2.80	nnw.	.....	1,437	3,400	
						1,250	870.8	−2.8	.....	62	3.00	nnw.	.....	1,225	2,370	
						1,000	898.9	−0.6	.....	55	3.20	nnw.	.....	980	1,370	
3:50	968.6	4.4	44	nnw.	10.7	772	924.6	1.4	0.80	48	3.21	nnw.	.....	757	660	
						750	927.1	1.6	.....	48	3.29	nnw.	.....	735	640	
						500	954.7	3.6	.....	45	3.56	nnw.	.....	490	430	
3:56	968.8	4.4	44	nnw.	10.3	396	968.8	4.4	.....	44	3.68	nnw.	10.3	388	.....	Few St.Cu., nnw.

November 24, 1916 (No. 1).

A. M.																
7:51	980.9	−5.0	71	nw.	5.8	396	980.9	−5.0	.....	71	2.85	nw.	5.8	388	.....	Cloudless.
						500	967.6	−5.7	.....	71	2.68	nw.	9.4	490	380	
						750	937.5	−7.4	.....	71	2.31	nnw.	18.1	735	590	
7:58	981.1	−5.0	76	nw.	7.6	774	934.7	−7.6	0.69	71	2.28	nnw.	18.9	759	580	
						1,000	908.0	−7.8	.....	53	1.67	nnw.	20.3	980	1,340	
8:10	981.3	−5.0	75	nw.	6.3	1,196	885.6	−7.9	0.07	38	1.19	nnw.	21.5	1,172	1,930	
						1,250	879.4	−8.1	.....	37	1.14	nnw.	21.5	1,225	2,240	
						1,500	851.3	−9.2	.....	32	0.89	nnw.	21.6	1,470	3,070	
						1,750	824.6	−10.2	.....	28	0.71	nnw.	21.6	1,715	3,900	
8:30	981.6	−4.8	72	nw.	6.7	1,887	810.0	−10.8	0.42	26	0.63	nnw.	21.6	1,850	4,380	
						2,000	798.1	−11.3	.....	24	0.55	nnw.	22.9	1,960	4,540	
						2,250	772.8	−12.5	.....	20	0.41	nnw.	25.9	2,205	6,360	
8:45	981.8	−4.6	75	nw.	7.6	2,415	756.2	−13.2	0.45	18	0.35	nnw.	27.9	2,366	7,690	
						2,500	748.0	−12.8	.....	17	0.34	nnw.	28.1	2,450	8,190	
9:06	982.1	−4.2	70	nw.	8.0	2,716	727.1	−11.7	−0.44	14	0.31	nnw.	28.5	2,660	.....	
9:22	982.2	−3.9	68	nnw.	5.4	2,507	747.2	−12.5	0.18	10	0.21	nnw.	26.9	2,457	8,170	
						2,500	748.0	−12.5	.....	10	0.21	nnw.	26.9	2,450	8,140	
						2,250	772.8	−12.0	.....	11	0.24	nnw.	27.0	2,205	6,860	
						2,000	798.1	−11.6	.....	12	0.28	nnw.	27.0	1,960	5,590	
9:42	982.4	−3.4	65	nnw.	6.3	1,857	813.5	−11.3	0.34	13	0.30	nnw.	27.0	1,820	4,870	
						1,750	824.6	−10.9	.....	14	0.33	nnw.	25.3	1,715	4,480	
						1,500	851.9	−10.0	.....	16	0.42	nnw.	21.4	1,470	3,800	
						1,250	880.2	−9.2	.....	19	0.53	nnw.	17.4	1,225	3,120	
10:01	982.5	−3.0	62	nnw.	6.7	1,215	884.4	−9.1	−0.10	19	0.53	nnw.	16.8	1,191	3,040	
10:11	982.5	−2.9	57	nnw.	7.2	1,011	908.1	−9.3	0.62	27	0.75	nnw.	16.3	991	2,340	
						1,000	909.8	−9.2	.....	28	0.78	nnw.	16.1	980	2,310	
10:20	982.5	−2.2	59	nnw.	7.2	756	938.5	−7.7	1.53	50	1.59	nnw.	11.7	741	1,240	
						750	940.1	−7.6	.....	50	1.60	nnw.	11.6	735	1,230	
						500	969.8	−3.8	.....	50	2.22	nnw.	7.5	490	660	
10:27	982.5	−2.2	50	nnw.	5.8	396	982.5	−2.2	.....	50	2.54	nnw.	5.8	388	.....	Cloudless.

November 24, 1916 (No. 2).

A. M.																
11:09	982.4	−2.1	46	nnw.	8.0	396	982.4	−2.1	.....	46	2.36	nnw.	8.0	388	.....	
						500	969.2	−3.2	.....	47	2.20	nnw.	8.2	490	740	Cloudless.
11:20	982.4	−1.6	45	nw.	5.4	748	939.4	−5.8	1.05	51	1.91	nw.	8.7	733	1,105	
						1,000	909.3	−8.0	.....	55	1.70	nnw.	10.2	980	2,340	
11:32	982.3	−1.5	47	nnw.	5.8	1,176	889.1	−9.6	0.89	58	1.56	nnw.	11.2	1,153	3,200	
						1,250	881.4	−9.3	.....	52	1.44	nnw.	12.3	1,225	3,400	
						1,500	853.5	−8.6	.....	36	1.05	nnw.	15.6	1,470	4,070	
11:42	982.2	−1.4	46	nw.	5.8	1,547	847.6	−8.4	−0.32	33	0.99	nnw.	16.2	1,516	4,200	
						1,750	826.6	−8.8	.....	28	0.81	nnw.	17.6	1,715	4,680	
						2,000	800.2	−9.2	.....	22	0.61	nnw.	19.4	1,960	5,670	
						2,250	775.0	−9.7	.....	15	0.40	nnw.	21.2	2,205	6,660	
P. M.																
12:05	982.1	−1.4	45	nnw.	6.3	2,266	772.0	−9.7	0.18	15	0.40	nnw.	21.3	2,221	6,740	
						2,500	750.0	−10.5	.....	15	0.37	nnw.	20.9	2,450	6,930	
						2,750	725.9	−11.4	.....	14	0.32	nnw.	20.4	2,694	7,760	
						3,000	701.9	−12.2	.....	14	0.30	nnw.	20.0	2,939	8,600	
12:46	981.9	−0.7	43	nnw.	5.4	3,013	700.7	−12.2	0.36	14	0.30	nnw.	20.0	2,952	8,600	

TABLE 9.—*Free-air data from kite flights at Drexel Aerological Station, November, 1916*—Continued.

November 24, 1916 (No. 2)—Continued.

Surface.						At different heights above sea.											
Time.	Pressure.	Temperature.	Relative humidity.	Wind.		Altitude.	Pressure.	Temperature.	Δt / 100 m.	Humidity.		Wind.		Potential.		Remarks.
				Dir.	Vel.					Rel.	Vap. pres.	Dir.	Vel.	Gravity.	Electric.	
P. M.	*mb.*	*°C.*	%		*m.p.s.*	*m.*	*mb.*	*°C.*		%	*mb.*		*m.p.s.*	*10^5 ergs.*	*volts.*	
						3,000	701.9	−12.1		14	0.30	nnw.	20.0	2,939	8,570	
						2,750	725.9	−11.1		13	0.31	nnw.	19.0	2,694	8,000	
						2,500	750.0	−10.2		12	0.31	nnw.	18.1	2,450	7,430	
						2,250	775.0	−9.2		11	0.31	nnw.	17.1	2,205	6,300	
1:17	981.6	−0.6	42	wnw.	5.4	2,106	788.0	−8.6	−0.04	11	0.32	nnw.	16.5	2,064	5,600	
						2,000	800.2	−8.6		11	0.32	nnw.	16.4	1,960	5,180	
						1,750	826.6	−8.7		10	0.29	nnw.	16.3	1,715	4,200	
1:30	981.4	−0.8	43	nw.	5.8	1,608	840.4	−8.8	−0.69	10	0.29	nnw.	16.2	1,576	3,640	
						1,500	853.5	−9.5		11	0.30	nnw.	12.1	1,470	3,170	
1:35	981.4	−0.8	45	wnw.	5.8	1,390	864.5	−10.3	0.81	12	0.30	nw.	8.0	1,363	2,640	
						1,250	881.4	−9.2		21	0.59	nw.	7.5	1,225	1,960	
						1,000	909.3	−7.1		38	1.27	wnw.	6.6	980	870	
1:50	981.2	−0.4	49	wnw.	5.4	859	925.4	−6.0	1.23	47	1.73	wnw.	6.1	842	380	
						750	938.9	−4.7		45	1.81	wnw.	6.0	735	0	
						500	968.9	−1.6		42	2.25	wnw.	5.9	490	0	
2:02	981.1	−0.3	40	wnw.	5.8	396	981.1	−0.3		40	2.38	wnw.	5.8	388		Cloudless.

November 25, 1916.

A. M.																
7:45	976.9	−1.8	71	sw.	5.4	396	976.9	−1.8		71	3.73	sw.	5.4	388		Few St.Cu., sw.
						500	963.4	−1.5		72	3.88	sw.	5.9	490	780	Cloudless.
						750	934.1	−0.6		73	4.24	wsw.	7.1	735	1,180	
8:21	976.9	−1.5	71	ssw.	5.4	949	911.4	0.0	−0.33	74	4.52	wsw.	8.1	930	2,330	
						1,000	905.4	−0.1		73	4.42	wsw.	8.1	980	2,410	
						1,250	878.1	−0.6		66	3.83	w.	8.8	1,225	2,810	
						1,500	851.3	−1.0		59	3.32	wnw.	7.6	1,470	3,930	
8:51	976.7	−1.0	70	sw.	5.4	1,652	834.8	−1.3	0.18	55	3.01	wnw.	7.5	1,619	4,600	
						1,750	825.3	−1.6		52	2.78	wnw.	7.8	1,715	5,290	
						2,000	799.4	−2.4		44	2.20	wnw.	8.6	1,960	5,580	
						2,250	775.1	−3.2		36	1.68	wnw.	9.4	2,205	5,880	
						2,500	750.6	−4.0		28	1.22	wnw.	10.2	2,450	5,700	
10:04	977.4	1.2	61	n.	5.8	2,557	745.6	−4.2	0.36	26	1.12	wnw.	10.4	2,506		
						2,500	750.6	−4.0		26	1.14	wnw.	10.2	2,450	5,700	
						2,250	775.1	−3.0		25	1.19	wnw.	9.5	2,205	4,800	
						2,000	799.4	−2.0		24	1.24	wnw.	8.8	1,960	3,900	
						1,750	825.3	−1.1		23	1.28	wnw.	8.1	1,715	2,990	
11:30	976.8	2.8	58	wsw.	4.5	1,656	834.8	−0.7	0.34	23	1.32	wnw.	7.8	1,623	2,650	
						1,500	851.6	−0.2		27	1.62	wnw.	7.4	1,470	2,150	
						1,250	878.9	0.7		35	2.25	wnw.	6.8	1,225	1,780	
						1,000	906.4	1.5		42	2.86	wnw.	6.1	980	1,420	
P. M.																
12:03	976.7	4.1	60	sw.	4.9	920	915.3	1.8	−0.09	44	3.06	wnw.	5.9	902	1,300	
						750	935.1	1.7		55	3.80	w.	6.0	735	1,060	
12:28	976.1	4.4	59	sw.	4.5	574	954.9	1.5	1.62	67	4.56	sw.	6.2	563	810	Few Ci.St.
						500	963.4	2.7		63	4.67	sw.	5.9	490	700	
12:36	975.9	4.5	58	sw.	5.4	396	975.9	4.5		58	4.88	sw.	5.4	388		Few Ci.St., w.

November 26, 1916 (No. 1).

A. M.																
7:42	963.8	2.2	71	ssw.	7.6	396	963.8	2.2		71	5.08	ssw.	7.6	388		7/10 Ci.St., nw.
						500	951.9	4.2		61	5.03	ssw.	14.6	490	460	9/10 Ci.St., nw.
						750	923.1	8.9		38	4.33	sw.	31.5	735	690	
7:55	963.8	2.3	71	ssw.	8.0	820	915.0	10.2	−1.84	32	3.98	sw.	36.2	804	755	6/10 Ci.St., nw.; 3/10 St.Cu.,nw.
						750	923.1	8.9		38	4.33	sw.	31.4	735	690	
						500	951.9	4.5		60	5.05	ssw.	14.3	490	460	
8:14	963.8	2.6	69	ssw.	7.2	396	963.8	2.6		69	5.09	ssw.	7.2	388		5/10 Ci.St., nw.; 3/10 St.Cu., nw.

November 26, 1916 (No. 2).

P. M.																
1:19	961.2	12.7	37	sw.	10.7	396	961.2	12.7		37	5.44	sw.	10.7	388		8/10 Ci.St., w.
						500	949.3	11.9				sw.	12.1	490	1,130	
						750	921.0	9.9				sw.	15.6	735	1,690	
1:27	961.0	12.9	37	sw.	11.2	799	915.6	9.5	0.79			sw.	16.3	783	1,800	
						1,000	893.1	8.3				sw.	16.8	980	3,020	Arc of 22°-halo, 1:32—2:05.
1:35	960.9	12.9	37	sw.	11.6	1,146	877.8	7.4	0.60			sw.	17.1	1,124	3,900	
						1,250	866.3	8.7				sw.	20.7	1,225	4,190	
						1,500	840.9	11.9				sw.	29.3	1,470	5,200	
1:51	960.5	13.0	38	sw.	10.3	1,526	838.3	12.2	−1.26			sw.	30.4	1,496	5,290	
						1,750	816.3	12.1				sw.	29.6	1,715	6,210	
2:05	960.4	13.3	37	sw.	11.6	1,988	793.0	11.9	0.00			sw.	28.7	1,948		9/10 Ci.St., w.
						1,750	816.3	11.8				sw.	28.0	1,715	5,110	
2:20	960.3	13.5	35	sw.	12.1	1,610	829.8	11.7	−1.43			sw.	27.6	1,578	4,590	
						1,500	840.9	10.1				sw.	27.4	1,470	4,190	
2:44	960.2	14.1	35	sw.	11.2	1,309	866.4	7.4	0.58			sw.	27.1	1,283	3,490	
						1,250	866.3	7.7				sw.	26.0	1,225	3,240	
						1,000	892.8	9.2				ssw.	21.2	980	2,280	
3:04	960.1	13.9	35	sw.	10.3	758	919.5	10.6	0.86			ssw.	16.5	743	1,240	
						500	948.2	12.8				sw.	12.7	490	820	
3:11	960.1	13.7	35	sw.	11.2	396	660.1	13.7		35	5.49	sw.	11.2	388		7/10 Ci.St., w.

TABLE 9.—*Free-air data from kite flights at Drexel Aerological Station, November, 1916*—Continued.

November 27, 1916, series (No. 1).

Surface.						At different heights above sea.											
Time.	Pressure.	Temperature.	Relative humidity.	Wind.		Altitude.	Pressure.	Temperature.	$\frac{\Delta t}{100\ m.}$	Humidity.		Wind.		Potential.		Remarks.
				Dir.	Vel.					Rel.	Vap. pres.	Dir.	Vel.	Gravity.	Electric.	
A. M.	*mb.*	°*C.*	%		*m. p. s.*	*m.*	*mb.*	°*C.*		%	*mb.*		*m. p. s.*	10^5 *ergs.*	*volts.*	
7:48	959.0	3.6	92	ssw.	6.3	396	959.0	3.6	.....	92	7.28	ssw.	6.3	388	.....	3/10 St.Cu.,ssw.;2/10A.Cu.,ssw.; 1/10 St.Cu., ssw.
						500	947.0	3.9	.....	80	7.92	sw.	6.9	490	810	
7:56	959.1	3.6	92	ssw.	5.8	706	923.2	4.5	−0.29	55	4.63	wsw.	8.1	692	1,140	
						750	918.6	5.1	.....	51	4.48	wsw.	8.2	735	.....	
8:34	959.7	3.8	94	sw.	5.4	1,000	891.2	8.3	.....	28	3.07	wnw.	8.9	980	.....	
						1,070	883.8	9.2	−1.29	21	2.44	nw.	9.1	1,049	.....	
						1,250	864.6	8.1	.....	23	2.48	nw.	9.4	1,225	.....	2/10 Ci.St.,ssw.;4/10A.Cu.,ssw.
						1,500	838.8	6.9	.....	26	2.59	nw.	9.7	1,470	.....	
						1,750	814.0	5.0	.....	30	2.62	wnw.	10.2	1,715	.....	7/10 Ci.St.,ssw.;2/10 A.Cu.,ssw.
						2,000	789.6	3.5	.....	33	2.59	wnw.	10.6	1,960	.....	
10:45	961.3	5.1	62	nw.	5.4	2,160	774.9	2.5	0.61	35	2.56	wnw.	10.8	2,117	2,700	22°-halo 10:16—11:48 a. m.
						2,250	766.1	2.1	.....	36	2.56	wnw.	11.1	2,205	2,880	
						2,500	742.8	0.4	.....	41	2.58	w.	12.5	2,450	3,350	
11:11	961.6	5.5	60	nw.	4.5	2,727	722.5	−0.2	0.48	43	2.58	w.	13.0	2,672	3,800	4/10 Ci.,ssw.;3/10Ci.St.,ssw.
						2,750	720.0	−0.4	.....	43	2.54	w.	13.0	2,694	4,690	
						3,000	698.0	−2.3	.....	43	2.17	w.	13.4	2,939	5,260	
						3,250	676.8	−4.2	.....	43	1.85	w.	13.7	3,184	5,820	
11:30	961.8	5.0	59	nw.	5.8	3,502	655.3	−6.2	0.77	43	1.56	w.	14.1	3,431	6,800	6/10 Ci.,sw
						3,750	634.8	−7.8	.....	43	1.35	w.	15.0	3,673	7,780	
						4,000	614.3	−9.4	.....	44	1.21	w.	16.0	3,918	8,770	
						4,250	595.2	−11.0	.....	44	1.04	wsw.	16.9	4,162	9,770	
						4,500	576.2	−12.6	.....	45	0.92	wsw.	17.9	4,407	10,760	
12:00	962.1	5.2	61	nw.	5.4	4,563	571.4	−13.0	0.64	45	0.89	wsw.	18.1	4,468	11,000	3/10 Ci.,sw.
						4,750	558.1	−13.8	.....	45	0.83	wsw	18.1	4,651	12,690	
						5,000	540.9	−14.9	.....	44	0.73	wsw.	18.0	4,896	13,500	
						5,250	523.3	−16.1	.....	44	0.66	wsw.	17.9	5,140	14,310	
						5,500	506.0	−17.2	.....	43	0.57	wsw.	17.9	5,384	15,120	
P. M.																
1:21	962.6	7.1	59	nw.	4.9	5,753	487.9	−18.3	0.73	43	0.52	wsw.	17.9	5,636	.....	2/10 Ci.,sw.
						5,500	505.3	−17.2	.....	43	0.57	wsw.	17.5	5,384	14,700	
						5,250	522.2	−16.1	.....	44	0.66	wsw.	17.1	5,140	13,700	
						5,000	539.8	−15.0	.....	44	0.73	wsw.	16.7	4,896	13,200	
						4,750	556.8	−13.8	.....	44	0.81	wsw.	16.3	4,651	12,710	
						4,500	575.0	−12.7	.....	45	0.92	wsw.	15.9	4,407	11,220	
2:01	962.8	8.2	50	nw.	4.9	4,288	590.9	−11.8	0.65	45	0.99	wsw.	15.6	4,199	9,960	2/10 Ci.St.,sw.
						4,250	594.0	−11.5	.....	45	1.02	wsw.	15.6	4,162	9,720	
						4,000	613.2	−9.9	.....	45	1.18	wsw.	15.5	3,918	8,720	
						3,750	633.6	−8.3	.....	44	1.33	wsw.	15.4	3,673	7,720	
						3,500	654.9	−6.7	.....	44	1.53	wsw.	15.3	3,429	6,720	
						3,250	676.1	−4.1	.....	43	1.86	wsw.	15.3	3,184	5,730	
2:19	962.9	8.4	48	nw.	5.4	3,044	693.5	−3.7	0.45	43	1.93	wsw.	15.2	2,982	4,900	
						3,000	697.6	−3.5	.....	43	2.00	wsw.	14.8	2,939	4,810	
						2,750	720.0	−2.5	.....	44	2.18	w.	11.4	2,694	4,280	
						2,500	742.8	−1.3	.....	44	2.41	wnw.	9.9	2,450	3,740	
						2,250	766.8	−0.1	.....	45	2.73	nw.	7.5	2,205	3,200	
2:34	963.0	8.5	46	n.	4.5	2,043	786.5	0.8	0.37	45	2.91	nw.	5.5	2,002	2,760	1/10 Ci.St.,sw.
						2,000	790.8	1.0	.....	45	2.96	nw.	6.0	1,960	2,670	
						1,750	815.3	1.9	.....	43	3.01	nnw.	9.0	1,715	2,170	
2:45	963.0	8.4	46	n.	4.5	1,662	824.5	2.2	0.51	43	3.08	nnw.	10.1	1,629	2,000	Few Ci.St.,sw.
						1,500	840.8	3.0	.....	44	3.34	nnw.	10.2	1,470	1,720	
						1,250	867.3	4.3	.....	44	3.66	n.	10.4	1,225	1,140	
3:01	963.1	8.5	45	n.	4.0	1,037	887.6	5.4	−0.96	45	4.04	n.	10.5	1,017	650	
						1,000	895.1	5.0	.....	45	3.92	n.	10.5	980	550	
3:04	963.2	8.4	45	nnw.	4.0	881	907.9	3.9	0.93	47	3.80	nnw.	10.5	864	230	
						750	923.2	5.1	.....	47	4.13	nnw.	8.6	735	0	
						500	951.4	7.4	.....	46	4.74	n.	5.1	490	0	
3:16	963.3	8.3	46	n.	3.6	396	963.3	8.3	.....	46	5.04	n.	3.6	388	.....	Few Ci.St.,sw.

November 27, 1916, series (No. 2).

P. M.																
3:59	964.2	8.7	50	nnw.	3.6	396	964.2	7.8	.....	50	5.29	nnw.	3.6	388	.....	Few Ci.St., sw.
						500	952.3	6.8	.....	52	5.14	nnw.	5.1	490	0	
						750	923.8	4.5	.....	58	4.88	nnw.	8.7	735	0	
4:08	964.3	7.7	50	nnw.	4.0	802	917.7	4.0	0.94	59	4.80	nnw.	9.4	786	0	
						1,000	895.8	3.8	.....	56	4.49	nnw.	10.2	980	520	
						1,250	868.2	3.5	.....	53	4.16	n.	11.1	1,225	1,180	
4:24	964.4	7.3	52	nnw.	3.6	1,295	863.7	3.4	0.12	52	4.06	n.	11.3	1,269	1,290	
						1,500	842.0	2.3	.....	53	7.82	n.	8.9	1,470	1,710	
						1,750	816.8	1.0	.....	54	3.55	nnw.	6.9	1,715	.....	
6:01	965.5	4.2	62	n.	2.7	1,855	805.9	0.5	0.36	55	3.48	nnw.	4.7	1,818	.....	Cloudless.
						1,750	816.8	0.7	.....	55	3.54	nnw.	4.9	1,715	.....	
						1,500	842.4	1.3	.....	56	3.76	nnw.	5.4	1,470	1,580	
6:55	966.1	2.9	67	n.	2.7	1,291	865.0	1.7	0.26	56	3.87	nnw.	5.8	1,266	940	
						1,250	870.0	1.8	.....	59	4.10	nnw.	5.9	1,225	820	
						1,000	897.8	2.5	.....	78	5.70	n.	6.4	980	50	
9:06	966.5	2.8	63	n.	1.8	985	898.7	2.5	0.31	79	5.77	n.	6.4	966	0	
						750	926.1	3.2	.....	71	5.46	n.	4.9	735	0	
						500	954.5	4.0	.....	63	5.12	n.	3.4	490	0	
9:14	966.5	3.1	63	n.	1.8	461	958.8	4.1	−1.38	62	5.08	n.	3.1	452	0	
9:16	996.5	3.2	63	n.	2.7	396	966.5	3.2	.....	63	4.84	n.	2.7	388	.....	Cloudless.

TABLE 5.—*Free-air data from kite flights at Drexel Aerological Station, November, 1916*—Continued.

November 28, 1916, series (No. 3).

Surface.						At different heights above sea.											
Time.	Pressure.	Temperature.	Relative humidity.	Wind.		Altitude.	Pressure.	Temperature.	$\frac{\Delta t}{100\ m.}$	Humidity.		Wind.		Potential.		Remarks.
				Dir.	Vel.					Rel.	Vap. pres.	Dir.	Vel.	Gravity.	Electric.	
A. M.	*mb.*	*°C.*	%		*m. p. s.*	*m.*	*mb.*	*°C.*		%	*mb.*		*m. p. s.*	*10^5 ergs.*	*volts.*	
4:05	964.5	−1.2	84	SSW.	3.1	396	964.5	−1.2	.....	84	4.65	SSW.	3.1	388	.....	Cloudless.
						500	952.1	1.0	.....	74	4.86	SSW.	4.9	490	710	
4:20	964.4	−1.1	80	SSW.	3.6	619	938.0	3.4	−2.06	63	4.91	SW.	7.0	607	880	
						750	923.2	3.9	.....	60	4.85	SW.	8.2	735	1,060	
4:25	964.4	−1.2	80	SSW.	3.6	924	903.5	4.5	−0.36	56	4.72	WSW.	9.7	906	1,310	
						1,000	895.3	4.4	.....	52	4.35	WSW.	9 9	980	1,420	
						1,250	868.2	4.1	.....	38	3.11	WSW.	10.6	1,225	1,770	
						1,500	842.1	3.8	.....	25	2.00	WSW.	11.3	1,470	2,350	
5:10	964.1	−0.1	78	S.	5.4	1,565	835.1	3.7	0.12	22	1.75	WSW.	11.5	1,534	2,540	
						1,750	816.2	2.8	.....	23	1.72	WSW.	11.5	1,715	2,810	
						2,000	791.3	1.6	.....	24	1.63	WSW.	11.6	1,960	3,860	
						2,250	767.1	0.3	.....	26	1.62	WSW.	11.7	2,205	4,920	
5:32	963.8	−0.1	80	S.	6.3	2,345	757.6	−0.2	0.50	26	1.56	WSW.	11.7	2,297	5,300	
						2,500	743.2	−0.1	.....	23	1.39	WSW.	12.5	2,450	5,920	
						2,750	720.2	0 0	.....	17	1.04	WSW.	13.8	2,694	6,340	
						3,000	698.3	0.1	.....	11	0.68	WSW.	15.2	2,939	6,770	
5:51	963.6	0.4	77	S.	7.6	3,118	688.1	0.1	−0.04	9	0.55	WSW.	15.8	3,055	8,200	
						3,250	676.9	−0.8	.....	11	0.63	WSW.	16.3	3,184	8,680	
						3,500	655.0	−2.4	.....	14	0.70	WSW.	17.1	3,429	10,450	
						3,750	635.3	−3.9	.....	16	0.71	WSW.	18.2	3,673	12,230	
						4,000	615.5	−5.5	.....	19	0.74	WSW.	19.1	3,918	14,000	
6:26	963.6	0.4	77	S.	7.2	4,012	614.0	−5.6	0.63	19	0.72	WSW.	19.2	3,939	14,000	
7:02	963.8	0.1	79	SSW.	6.3	4,198	600.5	−6.1	0.03	30	1.10	WSW.	21.2	4,111	14,870	5/10 Ci., w.
						4,250	596.1	−6.4	.....	29	1.03	WSW.	21.0	4,162	15,240	
						4,500	576.6	−8.0	.....	24	0.74	WSW.	20.0	4,407	17,720	
						4,750	558.2	−9.5	.....	20	0.54	WSW.	19.1	4,651	20,210	
7:55	964.2	−0.4	81	SSW.	6.7	4,938	544.9	−10.6	0.66	17	0.42	WSW.	18.4	4,835	.....	
						4,750	558.2	−9.4	.....	16	0.44	WSW.	18.3	4,651	19,780	
						4,500	576.1	−7.8	.....	14	0.44	WSW.	18.1	4,407	18,410	
						4,250	594.9	−6.2	.....	13	0.47	WSW.	17.9	4,162	17,040	
8:41	964.2	1.2	78	SSW.	4.9	4,169	601.6	−5.6	−0.05	13	0.50	WSW.	17.8	4,083	16,660	
8:50	964.2	1.5	78	SSW.	5.8	4,046	610.9	−6.2	0.60	14	0.51	WSW.	21.6	3,963	16,000	7/10 Ci., w.
						4,000	614.1	−5.9	.....	14	0.52	WSW.	21.4	3,918	15,710	
						3,750	634.4	−4.4	.....	14	0.59	WSW.	20.1	3,673	14,100	
9:11	964.1	2.8	75	SSW.	4.9	3,511	654.4	−3.0	−0.74	14	0.66	WSW.	18.9	3,439	12,580	8/10 Ci.St., w
						3,250	676.9	−4.9	.....	22	0.89	WSW.	21.5	3,184	11,490	
9:17	964.1	3.0	75	SSW.	5.4	3,242	677.1	−5.0	0.40	23	0.92	WSW.	21.6	3,176	10,680	
						3,000	698.3	−4.0	.....	35	1.53	WSW.	18.4	2,939	8,880	
9:30	964.0	4.0	70	SSW.	7.6	2,746	721.4	−3.0	0.81	48	2.28	WSW.	15.0	2,690	7,000	
						2,500	743.9	−1.1	.....	45	2.51	WSW.	15.7	2,450	5,960	22°-halo, 9:33–9:40.
						2,250	767.1	1.0	.....	39	2.56	WSW.	16.5	2,205	4,900	
9:42	963.9	4.6	65	SSW.	8.9	2,009	791.0	2.9	0.91	.36	2.71	WSW.	17.2	1,969	4,440	
						2,000	791.3	3.0	.....	36	2.73	WSW.	17.2	1,960	4,440	
						1,750	816.2	4.4	.....	29	2.43	WSW.	17.3	1,715	3,590	
						1,500	842.1	5.9	.....	22	2.04	WSW.	17.4	1,470	2,740	
9:59	963.8	4.8	62	SSW.	9.8	1,415	850.9	6.6	0.42	19	1.85	WSW.	17.4	1,387	2,400	
						1,250	868.2	7.3	.....	19	1.94	WSW.	17.7	1,225	1,810	
10:10	963.6	4.8	62	SSW.	10.3	1,082	885.8	8.0	−0.79	20	2.15	WSW.	18.0	1,061	1,230	
						1,000	895.3	7.4	.....	25	2.58	WSW.	17.5	980	860	
						750	923.2	5.4	.....	42	3.77	SW.	15.8	735	110	
						500	951.8	3.4	.....	58	4.52	SW.	14.0	490	0	
10:30	963.3	5.5	60	SSW.	8.5	490	952.2	3.3	2.45	59	4.57	SW.	13.9	480	0	
10:31	963.3	5.6	60	SSW.	9.4*	396	963.3	5.6	.....	60	5.46	SSW.	9.4	388	.....	8/10 A.St., w.; 1/10 A.Cu., wsw

November 28, 1916, series (No. 4).

A. M.																
11:10	962.0	6.4	57	SSW.	10.3	396	962.0	6.4	.....	57	5.48	SSW.	10.3	388	.....	8/10 Ci.St., w.; 1/10 A.Cu., wsw.
						500	949.6	6.2	.....	57	5.40	SSW.	12.5	490	450	22°-halo, 11:10–11:31.
11:14	962.0	6.7	57	SSW.	7.2	720	924.8	5.8	0.18	58	5.35	SW.	17.0	706	1,390	
						750	921.0	6.2	.....	56	5.31	SW.	17.4	735	1,520	
						1,000	893.9	9.1	.....	38	4.39	WSW.	20.5	980	2,540	
11:24	962.0	7.4	54	SSW.	9.8	1,007	893.1	9.2	−1.19	38	4.42	WSW.	20.6	987	2,580	
						1,250	866.1	8.8	.....	32	3.63	WSW.	19.4	1,225	3,140	
						1,500	841.1	8.2	.....	21	2.28	WSW.	17.3	1,470	4,400	
11:48	961.9	8.8	50	SW.	10.3	1,659	825.3	7.9	0.20	15	1.60	WSW.	16.2	1,626	4,860	
						1,750	816.0	7.2	.....	17	1.73	WSW.	16.4	1,715	5,100	
						2,000	791.2	5.4	.....	25	2.24	SW.	16.8	1,960	5,780	
						2,250	767.5	3.6	.....	33	2.61	WSW.	17.2	2,205	6,100	
P. M.																
12:18	961.5	11.0	44	SSW.	9.4	2,491	745.2	1.8	0.73	29	2.02	WSW.	17.6	2,441	6,100	
						2,500	744.5	1.7	.....	29	2.00	WSW.	17.7	2,450	6,100	
						2,750	721.8	0.3	.....	34	2.12	WSW.	19.6	2,694	6,960	
						3,000	699.3	−1.1	.....	38	2.12	W.	21.4	2,939	7,920	
12:46	961.0	11.6	43	WSW.	10.3	3,149	686.1	−1.9	0.58	41	2.14	W.	22.5	3,085	8,500	4/10 Ci.St., w.; 5/10 A Cu., wsw.
						3,000	699.3	−1.0	.....	40	2.14	W.	22.4	2,939	7,520	
						2,750	721.8	0.5	.....	39	2.47	W.	22.2	2,694	6,050	
						2,500	744.5	2.0	.....	38	2.68	WSW.	21.9	2,450	5,260	
1:34	960.8	12.4	40	WSW.	8.5	2,261	765.7	3.5	0.62	37	2.90	WSW.	21.7	2,216	4,500	1/10 Ci. St., w.; 2/10 A.Cu., wsw.
						2,250	767.5	3.6	.....	37	2.93	WSW.	20.8	2,205	4,470	
						2,000	790.6	5.2	.....	35	3.10	WSW.	19.0	1,960	3,750	
						1,750	815.1	6.7	.....	33	3.22	WSW.	17.1	1,715	3,020	
1:45	960.8	12.6	38	WSW.	8.9	1,650	825.3	7.3	0.36	32	3.27	WSW.	16.2	1,617	2,740	
						1,500	840.9	7.8	.....	30	3.17	WSW.	13.7	1,470	2,210	
1:51	960.8	12.7	39	SW.	8.0	1,458	844.7	8.0	−1.14	29	3.11	WSW.	13.0	1,429	2,070	
1:56	960.8	13.0	39	WSW.	7.6	1,248	866.8	5.6	0.63	41	3.73	WSW.	12.6	1,223	1,330	
						1,000	893.0	7.2	.....	43	4.37	WSW.	12.3	980	735	
2:07	960.8	12.5	38	WSW.	8.9	771	918.4	8.6	1.07	44	4.91	WSW.	12.0	756	230	
						750	921.0	10.8	.....	41	5.31	WSW.	11.8	735	180	
						500	949.3	11.5	.....	39	5.29	WSW.	9.8	490	0	
2:18	960.8	12.6	37	WSW.	8.9	396	960.8	12.6	.....	37	5.40	WSW.	8.9	388	.....	9/10 Ci.St., w.; few A.Cu., wsw

TABLE 5.—*Free-air data from kite flights at Drexel Aerological Station, November, 1916*—Continued.

November 28, 1916, series (No. 5).

Surface.						At different heights above sea.										
Time.	Pressure.	Temperature.	Relative humidity.	Wind.		Altitude.	Pressure.	Temperature.	$\frac{\Delta t}{100\ m.}$	Humidity.		Wind.		Potential.		Remarks.
				Dir.	Vel.					Rel.	Vap. pres.	Dir.	Vel.	Gravity.	Electric.	
P. M.	*mb.*	°*C.*	%		*m. p. s.*	*m.*	*mb.*	°*C.*		%	*mb.*		*m. p. s.*	10^5 *ergs.*	*volts.*	
3:05	960.9	12.7	41	wsw.	5.8	396	960.9	12.7	.....	41	6.02	wsw.	5.8	388	.....	3/10 Cl.St., w.; 7/10 A.St., w.
						500	949.1	12.1	.....	42	5.93	wsw.	6.7	490	0	
						750	920.6	10.8	.....	43	5.57	wsw.	8.9	735	0	
3:15	961.0	12.7	42	wsw.	4.0	765	919.5	10.7	0.54	43	5.53	wsw.	9.0	750	0	
						1,000	892.6	9.0	.....	41	4.71	w.	8.6	980	0	
3:40	961.5	12.3	43	wnw.	3.1	1,130	880.1	8.1	0.71	40	4.32	w.	8.4	1,108	270	
						1,250	866.3	7.7	.....	39	4.10	w.	9.2	1,225	1,130	
						1,500	841.0	6.8	.....	37	3.66	w.	10.9	1,470	1,550	
4:02	961.8	11.9	42	wnw.	3.6	1,573	834.3	6.5	0.36	37	3.58	w.	11.4	1,542	1,800	
						1,750	815.6	5.6	.....	39	3.55	w.	11.9	1,715	2,020	
						2,000	791.3	4.4	.....	42	3.52	w.	12.7	1,960	2,330	
						2,250	767.5	3.1	.....	44	3.36	w.	13.5	2,205	2,640	
4:15	962.0	11.2	42	wnw.	3.1	2,296	763.5	2.9	0.50	45	3.39	w.	13.6	2,250	2,700	10/10 A.St., w.
						2,500	744.0	1.3	.....	48	3.22	w.	14.3	2,450	3,150	
						2,750	721.3	−0.7	.....	52	3.00	w.	15.1	2,694	3,710	
						3,000	699.1	−2.8	.....	56	2.71	w.	16.0	2,939	4,270	
						3,250	678.0	−4.8	.....	59	2.41	w.	16.9	3,184	4,500	
						3,500	657.1	−6.8	.....	63	2.17	w.	17.8	3,429	4,500	
4:55	962.7	10.2	45	nw.	4.0	3,542	653.2	−7.1	0.78	64	2.14	w.	18.0	3,470	4,500	
						3,500	657.1	−6.8	.....	64	2.20	w.	17.9	3,429	4,410	
						3,250	678.0	−4.9	.....	62	2.51	w.	17.4	3,184	3,880	
						3,000	699.1	−3.0	.....	59	2.80	w.	16.9	2,939	3,340	
						2,750	721.3	−1.1	.....	56	3.12	w.	16.3	2,694	2,800	
						2,500	744.0	0.7	.....	53	3.41	w.	15.8	2,450	2,260	
5:35	963.4	9.3	51	nw.	4.0	2,381	755.5	1.6	0.30	52	3.57	w.	15.6	2,333	2,000	9/10 A.St., w.
						2,250	767.5	2.0	.....	50	3.53	w.	14.9	2,205	1,740	
						2,000	791.3	2.8	.....	46	3.44	wnw.	13.5	1,960	1,280	
						1,750	816.4	3.5	.....	41	3.22	nw.	12.1	1,715	820	
5:58	963.9	8.8	51	nw.	4.0	1,650	827.1	3.8	0.36	39	3.13	nw.	11.6	1,617	640	
						1,500	842.2	4.3	.....	38	3.18	nw.	10.8	1,470	470	
						1,250	868.6	5.3	.....	37	3.32	nw.	9.3	1,225	200	
6:12	963.9	8.5	52	nw.	4.0	1,072	887.7	5.9	0.37	36	3.34	nw.	8.3	1,051	0	
						1,000	895.6	6.2	.....	37	3.51	nw.	8.8	980	0	
6:30	964.2	8.8	49	nw.	3.1	776	920.8	7.0	0.84	41	4.11	nw.	10.5	761	0	
						750	923.8	7.2	.....	41	4.17	nw.	10.4	735	0	
6:41	964.3	8.8	49	nw.	3.1	539	947.8	9.0	−0.14	40	4.59	nw.	9.6	528	0	
						500	952.4	8.9	.....	42	4.79	nw.	7.8	490	0	
6:46	964.3	8.8	49	nw.	3.1	396	964.3	8.8	.....	49	5.55	nw.	3.1	388	.....	10/10 A.St., w.

November 29, 1916.

A. M.																
8:14	973.8	−0.4	70	nw.	4.5	396	973.8	−0.4	.....	70	4.14	nw.	4.5	388	.....	Cloudless.
						500	961.2	0.9	.....	62	4.04	nw.	7.7	490	0	
8:23	973.9	0.0	67	nw.	5.4	754	931.5	4.0	−1.23	41	3.33	nnw.	15.6	739	0	
						1,000	903.8	4.2	.....	40	3.30	nw.	16.6	980	1,640	
8:25	973.9	0.1	67	nw.	5.4	1,058	897.3	4.2	−0.07	40	3.30	nw.	16.9	1,037	2,030	
						1,250	876.2	3.9	.....	37	2.99	nw.	13.7	1,225	3,140	
8:43	974.1	0.6	65	nw.	5.4	1,485	851.5	1.4	0.66	33	2.23	nw.	11.6	1,456	4,200	
						1,500	849.3	1.3	.....	33	2.21	nw.	11.7	1,470	4,220	
						1,750	823.8	−0.7	.....	34	1.96	nw.	12.6	1,715	4,540	
9:02	974.3	1.4	63	nw.	5.8	1,993	799.2	−2.7	0.81	35	1.71	nw.	13.6	1,953	5,400	
						2,000	798.4	−2.8	.....	35	1.69	nw.	13.7	1,960	5,420	
						2,250	774.0	−4.7	.....	36	1.48	nw.	13.9	2,205	6,090	
						2,500	749.8	−6.6	.....	37	1.30	nw.	14.1	2,450	6,770	
						2,750	726.3	−8.5	.....	38	1.12	nw.	14.3	2,694	7,470	
9:41	975.0	3.6	50	nnw.	5.4	3,001	703.1	−10.4	0.76	39	0.98	nw.	14.5	2,940	8,200	
						3,250	680.5	−11.5	.....	37	0.84	nw.	15.7	3,184	9,690	
						3,500	658.8	−12.7	.....	35	0.71	nw.	16.8	3,429	11,180	
10:10	975.3	5.0	49	nw.	5.4	3,730	639.6	−13.7	0.45	33	0.61	nw.	17.9	3,654	12,560	
						3,750	633.2	−13.8	.....	33	0.61	nw.	17.9	3,673	12,680	
						4,000	616.9	−14.8	.....	31	0.52	nw.	17.7	3,918	13,380	
						4,250	597.0	−15.8	.....	29	0.44	nw.	17.6	4,162	13,920	
						4,500	577.1	−16.9	.....	27	0.37	nw.	17.4	4,407	14,480	
						4,750	557.6	−17.9	.....	25	0.32	nw.	17.2	4,651	.....	
11:02	975.3	6.2	43	nw.	6.7	4,847	550.2	−18.3	0.36	24	0.29	nw.	17.1	4,746	.....	
						4,750	557.6	−18.0	.....	24	0.30	nw.	17.1	4,651	.....	
						4,500	576.5	−17.2	.....	24	0.32	nw.	17.1	4,407	13,700	
						4,250	595.9	−16.5	.....	23	0.33	nw.	17.2	4,162	12,310	
						4,000	615.4	−15.7	.....	23	0.36	nw.	17.2	3,918	10,910	
12:00	975.3	7.6	41	nw.	6.7	3,783	632.2	−15.0	0.55	23	0.38	nw.	17.2	3,706	9,710	
						3,750	631.2	−14.8	.....	23	0.39	nw.	17.2	3,673	9,520	
						3,500	655.6	−13.4	.....	27	0.52	nw.	17.0	3,429	8,130	
						3,250	677.1	−12.0	.....	30	0.65	nw.	16.8	3,184	7,370	
						3,000	699.5	−10.7	.....	34	0.83	nw.	16.7	2,939	6,680	
P. M.																
12:35	975.3	8.2	40	nw.	7.6	2,755	723.1	− 9.3	0.79	38	1.05	nw.	16.5	2,899	6,000	
						2,500	747.6	− 7.3	.....	35	1.15	nw.	17.0	2,450	5,440	
						2,250	772.3	− 5.3	.....	31	1.21	nw.	17.5	2,205	4,890	
						2,000	797.9	− 3.4	.....	28	1.29	nnw.	18.1	1,960	4,340	
						1,750	824.1	− 1.4	.....	24	1.31	nnw.	18.6	1,715	3,800	
1:11	975.3	8.6	37	nnw.	7.6	1,565	844.2	0.1	0.46	22	1.35	nnw.	19.0	1,534	3,400	
						1,500	851.0	0.4	.....	24	1.51	nnw.	18.2	1,470	3,220	
						1,250	878.0	1.6	.....	32	2.20	nnw.	15.0	1,225	2,660	
						1,000	905.3	2.7	.....	39	2.89	nnw.	11.9	980	1,340	
1:34	975.3	9.0	38	nw.	6.3	783	930.2	3.7	1.32	46	3.66	nnw.	9.2	768	260	
						750	934.0	4.1	.....	45	3.68	nnw.	9.1	735	240	
						500	963.3	7.4	.....	40	4.12	nnw.	8.3	490	70	
1:40	975.3	8.8	38	nnw.	8.0	396	975.3	8.8	.....	38	4.31	nnw.	8.0	388	.....	Cloudless.

TABLE 9.—*Free-air data from kite flights at Drexel Aerological Station, November, 1916*—Continued.

November 30, 1916.

Surface.						At different heights above sea.										Remarks.
Time.	Pressure.	Temperature.	Relative humidity.	Wind.		Altitude.	Pressure.	Temperature.	$\frac{\Delta t}{100\ m.}$	Humidity.		Wind.		Potential.		
				Dir.	Vel.					Rel.	Vap. pres.	Dir.	Vel.	Gravity.	Electric.	
A. M.	*mb.*	°*C.*	%		*m. p. s.*	*m.*	*mb.*	°*C.*		%	*mb.*		*m. p. s.*	10^5 *ergs.*	*volts.*	
7:36	975.1	−3.8	72	ssw.	5.4	396	975.1	−3.8	.....	72	3.20	ssw.	5.4	388	.....	6/10Ci.St.,wnw.
						500	962.3	−0.4	.....	59	3.49	ssw.	8.0	490	0	
7:40	975.1	−4.0	74	ssw.	5.4	676	941.7	5.4	−3.29	37	3.32	sw.	12.5	663	0	
						750	933.0	5.1	.....	35	3.08	sw.	13.0	735	0	
						1,000	904.3	4.3	.....	28	2.33	wsw.	14.4	980	1,520	
7:56	975.0	−3.8	77	ssw.	4.9	1,207	882.1	3.6	0.34	23	1.82	wsw.	16.3	1,183	2,800	4/10Ci.St.,wnw.;2/10A.St.,wnw
						1,250	877.3	3.3	.....	23	1.78	wsw.	16.3	1,225	2,040	2/10 A.Cu.,wnw.
						1,500	850.3	1.8	.....	24	1.67	wsw.	16.2	1,470	4,440	
						1,750	824.0	0.2	.....	24	1.49	wsw.	16.1	1,715	5,810	
						2,000	798.8	−1.4	.....	25	1.30	wsw.	16.0	1,900	7,250	
8:21	974.9	−2.7	67	ssw.	5.8	2,119	787.3	−2.2	0.64	25	1.27	wsw.	16.0	2,077	8,200	1/10 Ci., nw.; 3/10 Ci.St., wnw.;
						2,250	774.5	−2.1	.....	20	1.03	w.	15.6	2,205	8,740	4/10 A.St., wnw.; 1/10 A.Cu.,
						2,500	750.0	−1.9	.....	11	0.57	wnw.	14.8	2,450	9,760	wnw.
8:54	974.7	−1.5	62	ssw.	6.7	2,617	739.5	−1.8	0.08	7	0.37	wnw.	14.4	2,564	10,170	
						2,750	727.0	−2.3	.....	10	0.50	wnw.	15.1	2,694	10,990	
						3,000	704.1	−3.3	.....	16	0.74	wnw.	15.4	2,939	12,980	
						3,250	682.3	−4.3	.....	22	0.94	wnw.	16.7	3,184	14,980	
						3,500	661.2	−5.4	.....	29	1.13	wnw.	18.0	3,429	16,970	
						3,750	641.2	−6.4	.....	35	1.25	wnw.	19.3	3,673	18,530	
						4,000	620.8	−7.4	.....	41	1.34	wnw.	21.6	3,918	19,940	
9:52	974.1	1.0	52	sw.	7.6	4,111	611.9	−7.9	0.39	44	1.37	wnw.	22.2	4,026	19,000	2/10Ci.,nw.;2/10Ci.St.,wnw.
						4,000	620.8	−7.5	.....	42	1.36	wnw.	21.4	3,918	18,380	
						3,750	641.2	−6.6	.....	37	1.30	wnw.	18.8	3,673	16,980	
						3,500	662.3	−5.6	.....	31	1.18	wnw.	16.2	3,429	15,570	
						3,250	684.1	−4.7	.....	27	1.11	wnw.	13.6	3,184	14,170	
10:26	973.4	2.0	58	sw.	8.0	3,078	698.4	−4.1	0.62	23	1.00	wnw.	14.8	3,016	13,200	
						3,000	706.2	−3.7	.....	22	0.99	wnw.	14.5	2,939	12,560	
						2,750	729.1	−2.1	.....	18	0.92	w.	13.7	2,694	10,500	
						2,500	751.3	−0.6	.....	15	0.87	w.	12.8	2,450	8,790	
						2,250	774.5	1.0	.....	11	0.72	wsw.	12.0	2,205	8,020	
10:45	973.0	3.4	49	sw.	8.0	2,189	780.5	1.4	0.43	10	0.68	wsw.	11.8	2,145	7,830	3/10Ci.St.,wnw.:5/10A.Cu.,wnw.
						2,000	798.8	2.2	.....	10	0.71	wsw.	12.5	1,900	7,210	
						1,750	824.0	3.3	.....	11	0.85	wsw.	13.4	1,715	6,330	
						1,500	849.6	4.3	.....	11	0.91	wsw.	14.3	1,470	5,500	
						1,250	876.2	5.4	.....	12	1.08	wsw.	15.2	1,225	4,940	
11:09	972.3	5.2	41	sw.	7.6	1,190	882.1	5.7	0.07	12	1.10	wsw.	15.4	1,167	4,800	
						1,000	903.1	5.8	.....	13	1.20	sw.	16.6	980	3,750	
11:18	972.1	6.5	37	sw.	8.0	914	912.3	5.9	−0.62	14	1.30	sw.	17.7	896	3,270	
						750	931.2	4.9	.....	18	1.56	sw.	13.1	735	2,360	
11:28	971.8	7.4	34	sw.	8.5	654	941.7	4.3	1.28	20	1.66	sw.	10.4	641	1,720	
						500	959.9	6.3	.....	26	2.48	wsw.	10.0	490	690	5/10Ci.St.,wnw.:2/10A.Cu.,wnw
11:34	971.6	7.6	30	wsw.	9.8	396	971.6	7.6	.....	30	3.13	wsw.	9.8	388	.....	

TABLE 10.—*Free-air data from kite flights at Drexel Aerological Station, December, 1916.*

December 1, 1916 (No. 1).

Surface.						At different heights above sea.										Remarks.
Time.	Pressure.	Temperature.	Relative humidity.	Wind.		Altitude.	Pressure.	Temperature.	Δt / 100 m.	Humidity.		Wind.		Potential.		
				Dir.	Vel.					Rel.	Vap. pres.	Dir.	Vel.	Gravity.	Electric.	
A. M.	*mb.*	°*C.*	%		*m. p. s.*	*m.*	*mb.*	°*C.*		%	*mb.*		*m. p. s.*	*10⁵ ergs.*	*volts.*	
8:22	970.4	0.2	64	n.	1.8	396	970.4	0.2	.....	64	3.97	n.	1.8	388	.....	1/10 Cl., w.
						500	958.0	1.7	.....	57	3.94	n.	4.2	490	0	Few Cl.St., w.
8:28	970.4	0.2	64	n.	2.2	647	940.6	3.8	−1.4	48	3.55	nne.	7.6	634	0	
9:06	970.7	2.7	55	nne.	1.3	751	929.1	5.1	−1.2	23	2.02	ne.	5.0	736	0	
						1,000	901.8	4.9	.....	27	2.34	ne.	4.4	980	0	
9:23	970.9	3.5	51	n.	1.3	1,150	884.9	4.5	0.2	29	2.44	ne.	4.1	1,127	0	
						1,000	902.0	4.5	.....	29	2.44	ne.	4.0	990	0	
						750	929.4	4.6	.....	30	2.54	n.	3.8	738	0	
9:28	970.9	4.3	50	n.	1.3	642	941.9	4.6	0.0	30	2.54	n.	3.7	629	0	
						500	958.9	4.6	.....	42	3.56	n.	2.3	490	0	
9:30	970.9	4.6	50	n.	1.3	396	970.9	4.6	.....	50	4.24	n.	1.3	388	.....	Few Cl.St., w.

December 1, 1916 (No. 2).

P. M.																
8:10	969.1	4.6	48	sse.	4.0	396	969.1	4.6	.....	48	4.07	sse.	4.0	388	.....	Few Cl.St., w.; 1/10 Cl., w.
						500	957.1	6.9	.....	48	4.78	s.	7.8	490	0	
8:11	969.1	4.6	48	sse.	4.0	521	951.5	7.4	−2.24	48	4.91	sse.	8.6	511	0	
						750	927.9	8.1	.....	40	4.32	s.	9.1	735	0	
						1,000	899.6	8.4	.....	32	3.53	ssw.	9.7	980	790	
8:33	968.9	3.9	50	s.	3.6	1,016	898.5	8.4	−0.20	31	3.42	ssw.	9.7	996	830	
						1,250	872.6	7.5	.....	30	3.11	ssw.	11.8	1,225	1,500	
						1,500	846.7	6.5	.....	28	2.71	sw.	14.0	1,470	2,090	
8:50	968.7	3.8	50	sse.	3.6	1,670	829.8	5.8	0.39	27	2.49	sw.	15.5	1,637	2,530	
						1,750	822.0	5.4	.....	28	2.51	sw.	14.6	1,715	2,710	3/10Cl.,w.;1/10Cl.St., w.
						2,000	797.1	4.3	.....	32	2.66	wsw.	11.7	1,960	3,380	
9:25	968.3	4.0	50	s.	4.0	2,162	780.8	3.6	0.42	34	2.69	wsw.	9.8	2,119	.....	
						2,000	798.7	4.1	.....	33	2.70	wsw.	11.9	1,960	3,330	
						1,750	821.1	4.8	.....	31	2.67	wsw.	15.1	1,715	2,480	
9:35	968.2	4.4	49	s.	3.6	1,725	823.9	4.9	0.57	31	2.68	wsw.	15.4	1,691	2,400	
						1,570	846.0	6.2	.....	29	2.75	wsw.	14.1	1,470	1,920	
						1,250	872.5	7.6	.....	28	2.92	ssw.	12.6	1,225	1,380	
9:47	968.1	4.3	52	sse.	3.6	1,023	897.2	8.9	−0.11	26	2.96	ssw.	11.2	1,003	730	
						1,000	899.5	8.9	.....	26	2.95	ssw.	11.1	980	660	
						750	927.8	8.6	.....	28	3.13	ssw.	10.2	735	.....	
9:58	967.9	3.6	53	sse.	4.0	499	955.8	8.3	−4.75	30	3.28	ssw.	9.2	489	.....	
10:00	967.9	3.4	53	sse.	3.6	396	937.9	3.4	.....	53	4.13	sse.	3.6	388	.....	3/10 Cl.St., w.

December 2, 1916.

A. M.																
7:50	932.8	−0.4	81	sse.	4.5	393	952.8	−0.4	.....	81	4.79	sse.	4.5	388	.....	7/10Cl.St.,sw.; 2/10A.Cu.,sw.
						500	950.8	1.6	.....	72	1.10	s.	7.8	490	.....	
7:59	932.8	−0.2	81	sse.	4.0	728	924.0	6.1	−1.96	52	4.93	s.	15.0	714	2,400	
						750	922.5	6.2	.....	51	1.07	s.	15.0	735	2,480	
						1,000	895.0	7.6	.....	40	4.18	s.	14.5	980	3,440	
						1,250	868.2	9.1	.....	29	3.35	s.	14.0	1,225	4,520	1/10 Cl.St., sw.; 9/10 A.St., sw
						1,500	842.2	10.5	.....	19	2.41	s.	13.6	1,470	6,050	
8:21	932.7	0.3	80	sse.	3.6	1,538	837.9	10.7	−0.57	17	2.19	s.	13.5	1,507	6,280	
						1,750	817.3	9.9	.....	15	1.83	s.	13.8	1,715	6,930	
						2,000	792.4	8.9	.....	12	1.37	s.	14.1	1,960	7,920	
8:45	932.6	1.5	76	sse.	3.6	2,094	783.4	8.5	0.40	11	1.22	s.	14.4	2,052	8,700	
						2,250	768.9	7.2	.....	12	1.22	s.	14.5	2,205	9,990	
						2,500	745.7	5.1	.....	13	1.14	ssw.	14.7	2,450	12,050	
						2,750	723.6	3.0	.....	14	1.06	ssw.	14.9	2,694	13,720	
9:13	932.6	2.9	72	s.	3.1	2,814	717.5	2.5	0.83	14	1.02	ssw.	15.0	2,757	14,060	7/10 A.St., sw.; 3/10 A.Cu., sw.
						3,000	701.7	1.5	.....	14	0.95	ssw.	15.4	2,939	14,980	
						3,250	680.1	0.1	.....	14	0.86	sw.	15.8	3,184	14,040	
						3,500	658.7	−1.3	.....	14	0.77	sw.	16.3	3,429	.....	5/10 A St., sw.; 5/10 St.Cu., sw.
10:07	932.7	4.2	68	ssw.	3.6	3,655	645.5	−2.2	0.54	14	0.71	sw.	16.6	3,580	.....	
						3,500	658.6	−1.4	.....	14	0.76	sw.	16.6	3,429	.....	
						3,250	679.8	−0.1	.....	14	0.85	ssw.	16.5	3,184	13,940	
						3,000	700.6	1.2	.....	15	1.00	ssw.	16.4	2,939	12,900	
						2,750	722.0	2.6	.....	15	1.11	s.	16.3	2,694	11,640	
10:39	932.3	5.0	66	s.	3.1	2,722	724.3	2.7	0.64	15	1.11	s.	16.3	2,667	11,500	
						2,500	744.3	4.2	.....	15	1.24	s.	16.8	2,450	10,150	
						2,250	767.7	5.7	.....	14	1.28	s.	17.3	2,205	8,640	
						2,000	792.0	7.3	.....	14	1.43	s.	17.8	1,960	7,770	
11:00	932.1	5.5	67	sse.	1.8	1,925	798.6	7.8	−0.40	14	1.48	s.	18.0	1,887	7,520	
						1,750	816.9	7.1	.....	21	2.12	s.	17.2	1,715	6,920	
						1,500	841.4	6.1	.....	31	2.92	s.	16.1	1,470	5,930	
11:12	931.9	5.6	64	sse.	1.8	1,446	846.4	5.9	0.27	33	3.07	s.	15.9	1,417	5,690	
						1,250	866.8	6.4	.....	38	3.65	s.	15.2	1,225	4,810	
						1,000	893.2	7.1	.....	44	4.44	s.	14.4	980	3,210	
						750	920.5	7.8	.....	50	5.29	s.	13.6	735	.....	
11:38	931.5	6.6	61	sse.	3.6	642	933.0	8.1	−2.77	53	5.72	s.	13.2	629	.....	8/10 A.St., sw.; 2/10 St.Cu., sw.
11:40	931.4	6.7	61	sse.	3.6	530	945.8	5.0	1.27	57	4.97	sse.	8.8	520	.....	
						500	949.2	5.4	.....	58	5.20	sse.	7.7	490	.....	
11:42	931.4	6.7	61	sse.	3.6	396	961.4	6.7	.....	61	5.98	sse.	3.6	388	.....	8/10 A.St., sw.; 2/10 St.Cu., sw.

December 3, 1916.

A. M.																
8:13	959.5	1.6	73	wsw.	3.6	396	959.5	1.6	.....	73	5.01	wsw.	3.6	388	.....	7/10 Cl., wsw.
8:20	959.5	1.4	73	wsw.	3.1	505	946.8	9.4	−7.16	41	4.83	wnw.	6.5	495	0	
						750	919.9	11.4	.....	35	4.72	w.	6.4	735	0	9/10 Cl.St., wsw.
8:39	959.7	1.9	71	wsw.	2.2	852	908.4	12.3	−0.85	33	4.72	w.	6.3	855	0	
						1,000	892.6	11.7	.....	31	4.26	w.	6.5	980	0	

TABLE 10.—*Free-air data from kite flights at Drexel Aerological Station, December, 1916*—Continued.

December 3, 1916—Continued.

Surface.						At different heights above sea.										
Time.	Pressure.	Temperature.	Relative humidity.	Wind.		Altitude.	Pressure.	Temperature.	Δt / 100 m.	Humidity.		Wind.		Potential.		Remarks.
				Dir.	Vel.					Rel.	Vap. pres.	Dir.	Vel.	Gravity.	Electric.	
A. M.	*mb.*	°*C.*	%		*m. p. s.*	*m.*	*mb.*	°*C.*		%	*mb.*		*m. p. s.*	10^3 *ergs.*	*volts.*	
						1,250	866.8	10.7		28	3.60	w.	6.9	1,225	150	9/10 A.St., wsw.
						1,500	841.5	9.6		24	2.87	wnw.	7.3	1,470	360	
10:32	959.8	8.0	53	nnw.	1.8	1,728	818.2	8.7	0.41	21	2.36	wnw.	7.6	1,694		
						1,750	816.8	8.5		21	2.33	wnw.	7.5	1,715		
						2,000	792.3	6.7		21	2.06	wnw.	6.0	1,960		
						2,250	768.1	4.9		21	1.82	wnw.	4.5	2,205		
11:47	959.3	12.1	42	n.	2.2	2,278	764.6	4.7	0.65	21	1.79	wnw.	4.3	2,232		
						2,250	767.9	4.9		21	1.82	wnw.	4.2	2,205		
						2,000	790.4	6.3		23	2.20	nw.	3.6	1,960	1,520	8/10 Ci.St., wsw.; 2/10A.St., wsw
P. M.																
12:28	958.4	13.3	39	n.	2.2	1,942	795.8	6.6	0.57	23	2.24	nw.	3.5	1,903	1,440	
						1,750	813.6	7.7		23	2.42	nw.	3.6	1,715	1,190	
						1,500	838.8	9.1		23	2.66	nw.	3.8	1,470	860	
						1,250	864.0	10.5		23	2.92	wnw.	4.0	1,225	540	
						1,000	891.8	12.0		23	3.23	wnw.	4.1	980		
12:46	958.0	13.9	37	n.	1.8	925	899.5	12.4	0.53	23	3.31	wnw.	4.2	907		
						750	919.0	13.3		25	3.82	nw.	3.0	735		
						500	945.9	14.6		27	4.49	n.	1.2	490		
1:06	957.6	15.2	28	n.	0.5	396	957.6	15.2		28	4.84	n.	0.5	388		9/10 Ci.St., w.

December 4, 1916, series (No. 1).

A. M.																
7:57	955.4	3.7	67	ssw.	7.2	396	955.4	3.7		67	5.33	ssw.	7.2	388		9/10 St.Cu., wsw.
						500	943.4	8.3		51	5.58	wsw.	8.5	490	0	
8:01	955.4	3.8	68	ssw.	7.2	633	928.5	14.1	−0.17	31	4.99	w.	10.1	621	0	
						750	916.2	14.1		26	4.18	w.	11.5	735	20	
8:11	955.4	3.5	70	sw.	6.7	926	896.7	14.1	0.00	18	2.90	w.	13.7	908	300	
						1,000	889.7	13.6		18	2.80	w.	13.7	980	420	7/10 St.Cu., wsw.
8:18	955.4	3.4	70	sw.	6.7	1,200	867.8	12.4	0.62	19	2.74	w.	13.6	1,176	730	
						1,250	863.1	12.0		20	2.81	w.	13.6	1,225	930	
						1,500	837.7	9.8		23	2.79	w.	12.9	1,470	1,950	
8:33	955.4	3.1	69	sw.	5.4	1,587	828.6	9.0	0.88	24	2.76	w.	12.7	1,555	2,300	4/10A.Cu.wsw.; 4/10St.Cu., wsw.
						1,750	812.9	7.5		27	2.80	w.	13.2	1,715	2,760	
						2,000	788.6	5.3		31	2.76	w.	14.1	1,960	3,460	
						2,250	765.2	3.0		36	2.76	wsw.	14.9	2,205	4,380	
8:57	955.4	4.0	70	sw.	4.9	2,497	741.3	0.8	0.90	40	2.59	wsw.	15.7	2,447	5,400	
						2,750	718.8	−0.6		45	2.61	w.	16.2	2,694	6,130	8/10St.Cu., wsw.
						3,000	696.4	−1.9		48	2.51	w.	16.7	2,939	6,900	
						3,250	674.6	−3.3		52	2.41	wnw.	17.3	3,184	8,350	
9:55	955.7	5.1	64	sw.	5.4	3,364	664.9	−3.9	0.54	54	2.38	wnw.	17.5	3,296	9,000	
						3,500	653.6	−4.5		53	2.22	wnw.	18.0	3,429	9,960	
						3,750	633.4	−5.6		52	1.98	wnw.	19.0	3,673	11,720	
						4,000	613.5	−6.8		51	1.75	wnw.	20.0	3,918	13,490	3/10Ci.St., wsw.; 4/10A.Cu., wsw.
10:53	955.1	9.2	53	wsw.	5.4	4,073	607.5	−7.1	0.45	51	1.71	wnw.	20.3	3,982	14,000	
						4,250	594.4	−8.2		52	1.58	wnw.	20.1	4,162	14,450	
						4,500	575.8	−9.9		52	1.36	wnw.	19.9	4,407	15,900	
						4,750	557.5	−11.6		53	1.19	wnw.	19.7	4,651		1/10 A.Cu., wnw.
P. M.																
12:12	954.1	15.2	33	w.	8.5	4,940	542.8	−12.8	0.59	54	1.09	wnw.	19.5	4,837		
						4,750	557.3	−11.8		53	1.17	wnw.	19.7	4,651		
						4,500	575.1	−10.5		52	1.29	wnw.	20.0	4,407	14,210	
12:32	954.2	15.5	31	wnw.	8.5	4,364	584.8	−9.8	0.82	52	1.37	wnw.	20.1	4,274	13,430	
						4,250	593.6	−8.9		50	1.43	wnw.	19.7	4,162	12,780	1/10 A.Cu., wnw.
						4,000	612.6	−7.0		46	1.55	wnw.	18.8	3,918	11,340	
						3,750	632.4	−5.1		42	1.67	wnw.	17.9	3,673	9,910	
						3,500	652.7	−3.2		38	1.78	nw.	17.0	3,429	8,480	
						3,250	674.0	−1.3		34	1.86	nw.	16.1	3,184	7,040	
						3,000	695.5	0.6		30	1.91	nw.	15.2	2,939	6,000	
1:02	954.3	15.3	31	wnw.	8.9	2,983	696.6	0.7	0.53	30	1.93	nw.	15.1	2,923	5,950	2/10 A.Cu., nw.
						2,750	717.5	2.0		28	1.98	nw.	15.0	2,694	5,200	
						2,500	739.9	3.4		26	2.03	nw.	14.7	2,450	4,400	
						2,250	762.7	4.8		24	2.06	wnw.	14.5	2,205	4,020	
						2,000	786.0	6.1		22	2.07	wnw.	14.3	1,960	3,650	
						1,750	810.2	7.5		19	1.97	wnw.	14.1	1,715	3,270	
1:30	954.3	15.2	31	nw.	7.6	1,702	815.4	7.8	0.28	19	2.01	wnw.	14.1	1,668	3,200	
						1,500	835.2	8.4		21	2.31	wnw.	13.0	1,470	2,750	
						1,250	860.8	9.1		24	2.77	wnw.	11.5	1,225	2,200	
						1,000	887.5	9.7		27	3.25	wnw.	10.1	980	1,380	
1:49	954.3	15.6	33	wnw.	6.7	871	901.7	10.1	0.95	28	3.46	wnw.	9.4	854	920	
						750	914.7	11.3		30	4.02	wnw.	8.5	735	490	
1:55	954.3	15.6	32	wnw.	5.4	672	923.4	12.0	1.30	32	4.49	wnw.	8.0	659	209	
						500	942.4	14.2		32	5.18	wnw.	6.6	490		
1:59	954.3	15.6	32	wnw.	5.8	396	954.3	15.6		32	5.67	wnw.	5.8	388		Few A.Cu., nw.

December 4, 1916, series (No. 2).

P. M.																
2:42	954.8	16.6	29	wnw.	8.5	396	954.8	16.6		29	5.48	wnw.	8.5	388		Few A.Cu., nw.; few Cl., w
						500	943.0	15.4		30	5.25	wnw.	9.5	490	0	
						750	915.0	12.6		33	4.78	w.	11.9	735	0	
2:51	954.9	16.6	30	wnw.	7.2	797	910.4	12.1	1.12	34	4.80	w.	12.4	781	0	
						1,000	888.1	11.2		32	4.26	w.	12.9	980	920	
						1,250	862.0	10.1		31	3.83	wnw.	13.4	1,225	2,010	
						1,500	836.6	8.9		29	3.31	nw.	14.0	1,470	2,320	
3:13	955.2	16.6	30	w.	8.5	1,727	814.4	7.9	0.45	27	2.88	nw.	14.5	1,693	2,600	
						1,750	812.2	7.7		27	2.88	nw.	14.5	1,715	2,640	
						2,000	787.7	6.0		27	2.53	nw.	14.2	1,960	3,040	
						2,250	764.0	4.3		27	2.24	nw.	13.9	2,205	3,440	Few Cl., w.; few A.Cu., nw.
3:34	955.6	16.6	30	w.	6.3	2,444	746.3	2.9	0.70	27	2.03	nw.	13.7	2,395	3,600	
						2,500	740.9	2.4		28	2.03	nw.	13.9	2,450	3,690	
						2,750	718.0	0.3		31	1.93	wnw.	14.6	2,694	4,100	

TABLE 10.—*Free-air data from kite flights at Drexel Aerological Station, December, 1916*—Continued.

December 4, 1916, series (No. 2)—Continued.

Surface.						At different heights above sea.										Remarks.
Time.	Pressure.	Temperature.	Relative humidity.	Wind.		Altitude.	Pressure.	Temperature.	$\frac{\Delta t}{100\ m.}$	Humidity.		Wind.		Potential.		
				Dir.	Vel.					Rel.	Vap. pres.	Dir.	Vel.	Gravity.	Electric.	
P. M.	*mb.*	°*C.*	%		*m. p. s.*	*m.*	*mb.*	°*C.*		%	*mb.*		*m. p. s.*	*10^5 ergs.*	*volts.*	
						3,000	696.3	−1.8		34	1.79	wnw.	15.4	2,939	4,530	
3:47	955.8	16.3	31	w.	5.8	3,015	695.0	−1.9	0.84	34	1.77	wnw.	15.4	2,954	4,560	
						3,250	674.9	−4.0		37	1.62	wnw.	17.0	3,184	4,970	
						3,500	653.7	−6.3		40	1.44	wnw.	18.8	3,429	5,400	
						3,750	632.5	−8.5		43	1.27	wnw.	20.5	3,673		
4:11	956.3	15.6	33	w.	4.9	3,791	629.4	−8.9	0.86	43	1.23	wnw.	20.8	3,713		
						3,750	632.4	−8.6		43	1.26	wnw.	20.7	3,673		
						3,500	653.4	−6.5		42	1.48	wnw.	19.9	3,429	5,250	
						3,250	674.0	−4.5		40	1.68	wnw.	19.2	3,184	4,640	
						3,000	695.2	−2.8		39	1.89	wnw.	18.4	2,939	4,030	
4:39	957.1	14.6	33	nw.	4.5	2,958	699.4	−2.1	0.77	39	2.00	wnw.	18.3	2,898	3,900	
						2,750	717.0	−0.5		38	2.23	wnw.	18.1	2,694	3,470	
						2,500	740.3	1.4		37	2.50	wnw.	17.8	2,450	2,970	
4:52	957.5	14.3	32	nnw.	5.4	2,319	757.7	2.8	0.18	36	2.69	wnw.	17.6	2,272	2,610	
						2,250	764.0	2.8		36	2.69	wnw.	16.9	2,205	2,490	
						2,000	778.4	2.9		38	2.86	nw.	14.3	1,960	2,220	Few A.Cu., nw.
5:05	957.9	13.6	32	nw.	7.6	1,749	813.2	2.9	0.90	40	3.01	nw.	11.7	1,714	1,950	
						1,500	838.8	5.2		40	3.54	nw.	13.0	1,470	1,460	
						1,250	865.5	7.5		39	4.04	nw.	14.3	1,225	870	
5:23	958.6	13.0	34	nnw.	7.6	1,214	868.9	7.7	0.37	39	4.10	nw.	14.5	1,190	780	
						1,000	892.6	8.5		38	4.22	nw.	15.1	980		
						750	920.0	9.4		37	4.36	nw.	15.9	735		
6:15	960.6	11.2	41	nw.	5.4	521	946.2	10.3	0.72	36	4.51	nw.	16.6	511		
						500	948.0	10.5		37	4.70	nw.	14.6	490		
6:20	960.4	11.2	41	nw.	4.9	396	960.4	11.2		41	5.45	nw.	4.9	388		

December 4, 1916, series (No. 3).

P. M.																
7:29	962.6	7.8	52	nw.	4.5	396	962.6	7.8		52	5.50	nw.	4.5	*388		Cloudless.
						500	950.4	8.4		51	5.62	nw.	13.6	490	0	
7:32	962.6	7.8	52	nw.	4.5	608	938.2	9.1	−0.61	50	5.78	nnw.	23.0	596	0	
						750	922.5	8.4		49	5.40	nnw.	23.0	735	0	
7:40	962.8	7.4	55	nw.	4.5	780	919.0	8.3	0.46	49	5.37	nnw.	23.0	765	0	
						1,000	894.5	6.3		51	4.87	nnw.	22.1	980	310	
7:55	963.0	7.5	56	nw.	6.3	1,162	877.3	4.9	0.89	52	4.50	nnw.	21.5	1,139	540	
						1,250	867.8	4.4		54	4.52	nnw.	21.0	1,225	660	
						1,500	842.2	2.9		60	4.52	nnw.	19.5	1,470	990	
8:06	963.2	7.5	56	nw.	5.4	1,609	830.8	2.2	0.60	63	4.51	nnw.	18.9	1,577	1,140	
						1,750	816.0	1.2		60	4.00	nnw.	19.6	1,715	1,295	
						2,000	790.6	−0.3		56	3.34	nnw.	20.5	1,960	1,570	
						2,250	766.2	−1.9		51	2.66	nw.	21.5	2,205	1,830	
8:35	963.5	7.1	58	nw.	4.9	2,374	755.1	−2.7	0.64	49	2.39	nw.	22.0	2,326	1,920	
8:45	963.6	6.8	59	nw.	5.4	2,482	744.9	−2.1	−0.56	34	1.74	nw.	24.2	2,432	2,000	3/10A.Cu.,wnw.
						2,500	743.0	−2.2		34	1.73	nw.	24.6	2,450	2,080	
8:54	963.7	7.2	56	nnw.	5.4	2,715	723.5	−3.2	0.52	28	1.31	nw.	29.6	2,660		
						2,500	743.6	−1.9		28	1.46	nw.	26.4	2,450	2,320	
9:10	964.0	7.0	57	nnw.	4.0	2,440	749.4	−1.6	−0.83	28	1.50	nw.	25.5	2,391	2,200	3/10Cl.St.,wnw.;2/10A.Cu.,wnw
9:20	964.3	6.2	59	nnw.	3.6	2,332	759.7	−2.5	0.76	36	1.79	nw.	19.9	2,285	2,040	
						2,250	767.8	−1.9		34	1.77	nw.	19.7	2,205	1,920	
						2,000	792.3	0.0		27	1.65	nw.	19.0	1,960	1,530	2/10 Cl.St., wnw.
						1,750	817.3	1.9		21	1.47	nnw.	18.1	1,715	1,120	
9:49	964.9	4.7	63	nnw.	4.0	1,499	842.9	3.8	−0.12	14	1.12	nnw.	17.6	1,469	840	
						1,250	869.0	3.5		32	2.51	nnw.	20.7	1,225	800	
10:00	965.2	5.0	64	nw.	4.0	1,177	877.3	3.4	0.82	37	2.89	nnw.	21.6	1,147	780	
						1,000	896.0	4.9		41	3.55	nnw.	19.3	980	520	
10:10	965.2	4.5	66	nw.	3.1	788	920.2	6.6	0.38	45	4.39	nnw.	16.6	773	170	
						750	924.2	6.5		45	4.36	nnw.	16.4	735	110	
10:15	965.3	4.4	67	nw.	3.1	551	947.2	7.5	−2.26	45	4.67	nnw.	15.2	540	0	
						500	953.0	6.3		53	5.06	nnw.	11.4	490	0	
10:19	965.3	4.0	68	nw.	3.6	396	965.3	4.0		68	5.53	nw.	3.6	388		1/10 Cl.St., wnw.

December 4-5, 1916, series (No. 4).

P. M.																
10:55	965.5	3.6	70	nw.	4.0	396	965.5	3.6		70	5.54	nw.	4.0	388		1/10 Cl.St., wnw.
						500	953.3	6.4		64	6.15	nw.	8.3	490	0	
10:57	965.5	3.6	70	nw.	4.0	542	948.4	7.5	−2.67	62	6.43	nw.	10.0	531	0	
						750	924.8	6.8		29	2.87	nnw.	18.7	735	0	
11:05	965.5	3.4	70	nw.	4.0	756	924.0	6.8	0.33	28	2.77	nnw.	18.9	741	0	
						1,000	897.5	5.5		25	2.26	nnw.	18.1	980	890	
						1,250	870.8	4.2		22	1.82	nnw.	17.4	1,225	1,650	
						1,500	844.4	3.0		19	1.44	nnw.	16.6	1,470	1,880	5/10 Cl.St., wnw.
11:30	965.7	3.6	69	nw.	4.0	1,627	830.6	2.3	0.52	17	1.23	nnw.	16.2	1,585	2,000	
						1,750	818.3	1.2		22	1.47	nnw.	16.1	1,715	2,700	
						2,000	793.4	−1.3		31	1.70	nw.	15.8	1,960	4,130	
11:55	965.9	2.9	71	nw.	4.0	2,083	784.6	−1.8	0.90	34	1.79	nw.	15.7	2,041	4,600	
						2,250	769.0	−2.8		39	1.89	nw.	17.0	2,205	4,940	
						2,500	745.4	−4.3		47	2.00	nw.	18.9	2,450	5,450	
						2,750	722.0	−5.8		55	2.06	wnw.	20.7	2,694	6,030	5/10Cl.St.,wnw.;2/10A.Cu.wnw
A. M.																
12:22	966.4	2.7	73	nw.	5.4	2,982	699.8	−7.2	0.66	62	2.06	wnw.	22.5	2,922	6,710	
						2,750	720.5	−5.5		70	2.69	wnw.	22.8	2,694	5,010	
12:45	966.9	2.8	72	wnw.	4.5	2,736	722.0	−5.4	−1.76	71	2.75	wnw.	22.8	2,681	4,900	
12:56	967.1	2.8	71	wnw.	5.4	2,651	729.9	−6.9	0.69	76	2.59	wnw.	15.8	2,598	4,670	
						2,500	743.6	−5.9		65	2.41	wnw.	15.4	2,450	4,260	
						2,250	768.3	−4.1		47	2.04	nw.	14.8	2,205	3,590	
1:11	967.5	2.6	72	wnw.	4.9	2,144	778.8	−3.4	0.49	39	1.79	nw.	14.5	2,101	3,300	
						2,000	793.4	−2.7		36	1.76	nw.	15.0	1,960	3,020	
						1,750	818.9	−1.7		32	1.70	nw.	15.8	1,715	2,540	
1:25	967.8	2.7	71	wnw.	4.0	1,572	837.2	−0.6	0.98	29	1.68	nw.	16.6	1,541	2,200	9/10 A.Cu., wnw.
						1,500	845.3	0.1		29	1.78	nw.	16.0	1,470	2,130	

TABLE 10.—*Free-air data from kite flights at Drexel Aerological Station, December, 1916*—Continued.

December 4-5, 1916 series (No. 4)—Continued.

Surface.						At different heights above sea.										Remarks.
Time.	Pressure.	Temperature.	Relative humidity.	Wind.		Altitude.	Pressure.	Temperature.	$\frac{\Delta t}{100\ m.}$	Humidity.		Wind.		Potential.		
				Dir.	Vel.					Rel.	Vap. pres.	Dir.	Vel.	Gravity.	Electric.	
A. M.	*mb.*	°*C.*	%		*m. p. s.*	*m.*	*mb.*	°*C.*		%	*mb.*		*m. p. s.*	10^6 *ergs.*	*volts.*	
						1,250	872.2	2.6	.....	30	2.21	nnw.	14.1	1,225	1,880	
1:37	968.1	2.7	69	wnw.	4.0	1,235	873.5	2.7	0.71	30	2.23	nnw.	14.0	1,211	1,860	
						1,000	899.4	4.4	.....	27	2.26	n.	14.2	980	880	
1:50	968.4	2.4	70	wnw.	5.4	812	920.2	5.7	0.53	25	2.29	n.	14.4	796	0	
						750	927.0	5.7	.....	25	2.29	n.	13.8	735	0	
1:55	968.5	2.4	70	wnw.	5.4	622	942.0	5.8	−1.55	24	2.21	n.	12.7	610	0	
						500	955.8	3.9	.....	49	3.96	nw.	8.8	490	0	
2:01	968.6	2.3	71	wnw.	5.4	396	968.6	2.3	.....	71	5.12	wnw.	5.4	388	.....	8/10 A.Cu., wnw.

December 5, 1916, series (No. 5).

A. M.																
2:48	969.4	1.7	73	wnw.	4.5	396	969.4	1.7	.....	73	5.04	wnw.	4.5	388	.....	6/10 A.Cu., wnw.
						500	956.9	4.4	.....	46	3.85	nw.	10.2	490	0	
2:55	969.5	1.6	74	wnw.	4.5	540	952.4	5.4	−2.57	36	3.23	nnw.	12.4	529	0	
3:04	969.5	1.6	73	wnw.	4.0	752	928.1	5.2	0.09	28	2.48	nnw.	12.5	737	0	
						1,000	900.5	3.1	.....	28	2.14	nnw.	13.3	980	1,120	
3:15	969.4	1.3	75	wnw.	4.0	1,191	879.0	1.4	0.87	28	1.89	nnw.	13.9	1,168	1,985	
						1,250	872.8	0.9	.....	29	1.89	nnw.	14.0	1,225	2,005	
						1,500	845.7	−1.3	.....	34	1.86	nnw.	14.3	1,470	2,675	
						1,750	819.2	−3.5	.....	39	1.78	nw.	14.7	1,715	3,470	
3:35	969.1	1.2	73	wnw.	3.1	1,917	802.2	−4.9	0.87	42	1.70	nw.	14.9	1,879	3,800	
						2,000	793.5	−5.2	.....	44	1.73	nw.	15.2	1,960	3,800	
						2,250	768.3	−6.3	.....	51	1.83	nw.	16.0	2,205	4,210	2/10 A.Cu., wnw.
						2,500	744.6	−7.3	.....	58	1.90	wnw.	16.8	2,450	5,050	
3:53	968.9	0.6	73	wnw.	3.6	2,599	735.0	−7.7	0.41	61	1.94	wnw.	17.1	2,547	5,250	
						2,750	721.7	−8.6	.....	64	1.88	wnw.	17.2	2,694	5,800	
						3,000	699.4	−10.2	.....	68	1.73	wnw.	17.3	2,939	6,800	
						3,250	677.0	−11.7	.....	73	1.63	w.	17.4	3,184	7,790	
4:25	969.0	0.2	74	wnw.	3.1	3,404	662.8	−12.7	0.58	76	1.55	w.	17.5	3,335	8,400	
						3,250	676.5	−11.9	.....	78	1.71	w.	21.7	3,184	7,730	
						3,000	698.5	−10.5	.....	81	2.01	w.	28.6	2,939	6,640	
4:46	969.1	−0.1	77	w.	4.5	2,974	700.7	−10.4	0.05	81	2.03	w.	29.3	2,914	6,520	1/10 A.Cu., wnw.
5:03	969.2	−0.2	79	w.	4.5	2,786	718.3	−10.3	0.77	79	2.00	w.	24.8	2,730	5,700	
						2,750	721.6	−10.0	.....	78	2.03	w.	24.1	2,694	5,550	
						2,500	745.2	−8.1	.....	72	2.21	w.	19.5	2,450	4,600	
5:18	969.4	0.4	77	w.	3.1	2,292	765.5	−6.5	0.94	67	2.37	w.	15.6	2,246	4,200	
						2,250	769.2	−6.1	.....	64	2.34	w.	15.6	2,205	3,700	
						2,000	792.3	−3.8	.....	47	2.09	w.	15.9	1,960	2,700	
						1,750	816.7	−1.4	.....	30	1.63	wnw.	16.1	1,715	2,700	2/10 A.Cu., wnw.
5:40	969.7	0.6	75	wsw.	4.0	1,684	826.9	−0.8	0.48	26	1.48	wnw.	16.2	1,651	2,700	
						1,500	843.5	0.1	.....	24	1.48	wnw.	14.4	1,470	2,130	
						1,250	872.2	1.3	.....	22	1.48	nw.	11.9	1,225	1,350	
5:50	969.8	0.5	75	w.	4.0	1,229	875.4	1.4	0.82	22	1.49	nw.	11.7	1,205	1,280	
						1,000	900.4	3.3	.....	21	1.63	nw.	10.7	980	670	
						750	928.2	5.4	.....	20	1.79	nw.	9.5	735	20	
6:07	970.0	0.2	71	w.	4.9	744	929.4	5.4	0.17	20	1.79	nw.	9.5	730	0	
6:13	970.1	−0.1	71	w.	4.5	512	956.3	5.6	−5.00	21	1.91	wnw.	6.2	502	0	
						500	957.7	5.0	.....	26	2.27	wnw.	6.0	490	0	
6:16	970.2	−0.2	71	w.	4.5	396	970.2	−0.2	.....	71	4.27	w.	4.5	388	.....	1/10 A.Cu., wnw.

December 5, 1916, series. (No. 6.)

A. M.																
7:02	970.9	−1.6	75	w.	4.0	396	970.9	−1.6	.....	75	4.01	w.	4.0	388	.....	Few A.Cu., wnw.
						500	958.5	0.5	.....	53	3.35	wnw.	7.4	490	0	
7:05	971.0	−1.7	76	w.	4.0	574	949.7	5.2	−2.02	37	3.27	nw.	9.8	563	0	
7:15	971.2	−1.8	75	w.	4.5	754	929.2	5.4	−0.11	25	2.24	nw.	9.8	739	0	
						1,000	901.6	3.7	.....	22	1.75	nw.	10.0	980	80	
						1,250	874.5	1.9	.....	19	1.33	nnw.	10.3	1,225	1,330	
7:42	971.7	−1.6	76	w.	4.9	1,361	862.7	1.1	0.71	18	1.19	nnw.	10.4	1,334	1,880	
						1,500	848.1	−0.1	.....	17	1.03	nnw.	10.2	1,470	2,100	
						1,750	822.2	−2.2	.....	15	0.76	nw.	9.9	1,715	2,820	
8:10	972.1	−0.2	71	w.	4.9	1,812	815.8	−2.7	0.84	15	0.73	nw.	9.8	1,776	3,000	
						2,000	796.4	−3.9	.....	16	0.71	nw.	12.7	1,960	3,490	
						2,250	771.3	−5.4	.....	18	0.70	nw.	16.5	2,205	4,130	
8:41	972.4	1.0	66	wsw.	4.5	2,276	769.4	−5.6	0.62	18	0.69	nw.	16.9	2,230	4,200	
						2,500	747.1	−7.2	.....	19	0.63	nw.	18.0	2,450	4,830	
						2,750	724.1	−9.0	.....	19	0.54	wnw.	19.3	2,694	5,510	
9:27	972.9	2.5	53	w.	4.0	2,931	707.7	−10.3	0.72	20	0.51	wnw.	20.2	2,872	6,000	
						3,000	701.7	−10.7	.....	20	0.49	wnw.	21.2	2,939	6,220	
						3,250	680.3	−12.0	.....	22	0.48	wnw.	24.7	3,184	6,940	
						3,500	658.6	−13.4	.....	23	0.44	w.	28.2	3,429	7,640	
10:28	973.3	5.0	55	wsw.	1.8	3,755	635.5	−14.8	0.57	24	0.40	w.	31.8	3,678	8,500	
						3,500	658.8	−13.3	.....	24	0.46	w.	28.2	3,429	.....	2/10 Ci.Cu., w.; 1/10 A.Cu., wnw.
						3,250	680.7	−11.8	.....	24	0.53	w.	24.9	3,184	.....	
						3,000	702.5	−10.4	.....	25	0.63	wnw.	21.1	2,939	.....	
						2,750	725.3	−8.9	.....	25	0.72	wnw.	17.6	2,694	.....	
11:12	973.2	6.6	48	wnw.	2.2	2,696	729.9	−8.6	0.75	25	0.74	wnw.	16.8	2,642	.....	
						2,500	748.3	−7.1	.....	25	0.84	wnw.	15.6	2,450	.....	3/10 Ci.Cu., w.; 3/10 A.Cu., wnw.
						2,250	772.9	−5.2	.....	26	1.02	wnw.	14.1	2,205	.....	
						2,000	798.0	−3.4	.....	27	1.24	wnw.	12.5	1,960	.....	
11:40	972.8	7.5	46	w.	2.7	1,831	814.6	−2.1	0.66	27	1.39	wnw.	11.5	1,795	.....	
						1,750	824.0	−2.0	.....	27	1.40	wnw.	11.5	1,715	.....	
						1,500	849.7	0.1	.....	27	1.66	wnw.	10.1	1,470	.....	
						1,250	876.1	1.7	.....	26	1.80	wnw.	9.0	1,225	.....	
						1,000	903.4	3.3	.....	26	2.01	w.	7.9	980	.....	
						750	931.7	5.0	.....	25	2.18	w.	6.8	735	.....	
11:58	972.6	7.9	43	w.	3.1	581	951.0	6.1	1.08	25	2.36	w.	6.1	570	.....	
						500	960.7	7.0	.....	33	3.31	w.	4.8	490	.....	
P. M.																
12:01	972.6	8.1	43	w.	3.1	396	972.6	8.1	.....	43	4.64	w.	3.1	388	.....	2/10 Ci.Cu., w.; 5/10 A.Cu., wnw.

TABLE 10.—*Free-air data from kite flights at Drexel Aerological Station, December, 1916*—Continued.

December 6, 1916.

Surface.						At different heights above sea.										Remarks.
Time.	Pressure.	Temperature.	Relative humidity.	Wind.		Altitude.	Pressure.	Temperature.	$\frac{\Delta t}{100\ m.}$	Humidity.		Wind.		Potential.		
				Dir.	Vel.					Rel.	Vap. pres.	Dir.	Vel.	Gravity.	Electric.	
A. M.	*mb.*	*° C.*	%		*m. p. s.*	*m.*	*mb.*	*° C.*		%	*mb.*		*m. p. s.*	*10^5 ergs.*	*volts.*	
7:47	963.3	1.2	58	sse.	6.3	396	963.3	1.2	.....	58	3.86	sse.	6.3	388	.....	2/10Ci.St.,w.; 7/10A. Cu.,w.
						500	950.9	4.6	.....	52	4.41	sse.	11.9	490	0	
7:53	963.2	1.2	59	se.	5.8	694	928.8	11.1	−3.32	42	5.55	s.	22.3	681	1,170	
						750	922.6	11.1	.....	40	5.28	s.	22.8	735	1,790	
8:01	963.1	1.4	59	sse.	5.4	867	909.7	11.0	0.06	37	4.86	s.	23.9	850	3,060	
						1,000	895.6	10.1	.....	39	4.82	s.	24.0	980	4,570	
						1,250	869.2	8.4	.....	44	4.85	ssw.	24.1	1,225	6,770	
8:20	962.9	1.6	57	sse.	6.3	1,430	849.6	7.2	0.67	47	4.78	ssw.	24.2	1,402	8,200	
						1,500	843.0	6.8	.....	47	4.64	ssw.	24.2	1,470	8,910	
						1,750	817.4	5.3	.....	45	4.01	ssw.	24.2	1,715	11,450	
8:36	962.7	1.7	56	sse.	7.2	1,951	797.0	4.1	0.60	44	3.60	ssw.	24.2	1,912	13,500	2/10A.St.,w.; 6/10A.Cu.,w.
						2,000	792.4	4.0	.....	43	3.50	ssw.	24.3	1,960	13,840	
						2,250	768.6	3.6	.....	39	3.08	ssw.	24.8	2,205	15,040	
9:04	962.4	3.9	51	sse.	7.6	2,450	749.7	3.3	0.32	36	2.79	ssw.	25.2	2,401	16,500	4/10Cl.,w.; 3/10A.Cu.,w.
						2,250	768.8	4.3	.....	35	2.91	ssw.	24.3	2,205	15,850	
						2,000	791.8	5.4	.....	33	2.96	ssw.	22.3	1,960	14,220	
9:45	961.5	6.6	49	s.	10.3	1,911	800.5	5.9	0.56	32	2.97	ssw.	21.9	1,873	13,430	2/10Ci.,w.; 1/10A.Cu.,w.
						1,750	816.1	6.8	.....	36	3.56	ssw.	23.3	1,715	12,010	
						1,500	840.9	8.2	.....	42	4.57	ssw.	25.4	1,470	9,810	
10:10	960.9	7.7	46	s.	10.7	1,284	863.2	9.4	0.36	47	5.54	ssw.	27.3	1,259	7,900	
						1,250	866.5	9.5	.....	49	5.82	ssw.	26.5	1,225	7,550	
10:20	960.7	8.2	46	s.	9.8	1,032	889.5	10.3	−0.06	65	8.14	s.	21.6	1,012	5,290	
						1,000	892.5	10.3	.....	66	8.27	s.	21.4	980	4,950	
10:25	960.6	8.5	46	s.	10.3	869	907.1	10.2	−7.35	72	8.96	s.	20.4	852	3,340	2/10Ci.St.,w.; 2/10St.Cu.,s.
10:32	960.4	9.2	46	s.	10.7	820	912.2	6.6	0.87	74	7.22	s.	19.4	804	2,720	
						750	919.3	7.2	.....	70	7.11	s.	18.0	735	.....	
						500	947.5	8.4	.....	54	5.95	s.	12.8	490	.....	
10:43	960.2	10.3	47	s.	10.7	396	960.2	10.3	.....	47	5.89	s.	10.7	388	.....	2/10 Ci.St., w.

December 7, 1916.

A. M.																
7:56	958.4	1.2	79	nnw.	4.5	396	958.4	1.2	.....	79	5.26	nnw.	4.5	388	.....	2/10 St.Cu., nnw.; 1/10 Cl., ssw.;
						500	946.0	0.5	.....	82	5.19	nnw.	7.4	490	0	3/10 St.Cu., nnw.
						750	916.8	−1.2	.....	88	4.87	nnw.	14.3	735	0	
8:08	958.6	1.1	80	nnw.	4.9	783	913.5	−1.4	0.67	89	4.84	wnw.	15.2	768	0	
						1,000	888.7	1.6	.....	76	5.18	nnw.	12.8	980	1,220	
8:11	958.7	1.2	79	nnw.	4.9	1,032	885.6	2.0	−1.37	74	5.22	nnw.	12.5	1,012	1,400	
						1,250	862.3	1.9	.....	68	4.77	nw.	11.4	1,225	2,490	9/10 St.Cu., nnw.
						1,500	836.7	1.7	.....	62	4.28	wnw.	10.1	1,470	5,560	
9:49	960.6	2.5	75	nw.	7.6	1,665	820.5	1.6	0.06	58	3.98	wnw.	9.3	1,632	6,440	St.Cu., base at about 850 m.
						1,750	811.7	1.2	.....	58	3.86	wnw.	9.3	1,715	6,880	
						2,000	786.9	0.1	.....	58	3.58	wnw.	9.3	1,960	8,200	
9:50	960.6	2.5	75	nw.	7.6	2,078	779.3	−0.3	0.46	58	3.46	wnw.	9.3	2,036	8,620	
						2,250	762.5	−0.4	.....	53	3.13	wnw.	10.6	2,205	9,530	
						2,500	738.7	−0.6	.....	47	2.73	wnw.	12.6	2,450	10,850	
						2,750	716.4	−0.8	.....	40	2.28	wnw.	14.5	2,694	12,170	
9:53	960.7	2.6	75	nw.	10.3	2,835	709.1	−0.9	0.08	38	2.15	wnw.	15.2	2,778	12,620	
						3,000	694.6	−1.8	.....	40	2.10	wnw.	15.8	2,939	13,490	
						3,250	673.7	−3.2	.....	44	2.06	w.	16.8	3,184	14,810	
						3,500	652.8	−4.6	.....	48	1.99	wsw.	17.7	3,429	.....	
						3,750	632.3	−6.0	.....	52	1.91	sw.	18.6	3,673	.....	
10:01	960.8	2.7	74	nw.	9.4	3,904	619.3	−6.9	0.56	54	1.84	sw.	19.2	3,824	.....	10/10 St.Cu., nnw.
																Kites broke away.

December 8, 1916.

P. M.																
12:55	970.3	−0.9	45	nnw.	8.0	396	970.3	−0.9	.....	45	2.55	nnw.	8.0	388	.....	Few Ci.St., wsw.
						500	957.9	−2.5	.....	45	2.23	nnw.	9.4	490	.....	
						750	927.6	−6.2	.....	46	1.67	nnw.	12.9	735	.....	
1:04	970.3	−1.6	41	nnw.	10.3	760	926.5	−6.4	1.51	46	1.64	nnw.	13.0	745	890	
						1,000	897.8	−7.8	.....	42	1.32	nnw.	13.5	980	2,870	
						1,250	869.5	−9.2	.....	38	1.06	nnw.	14.0	1,225	4,050	
						1,500	842.4	−10.7	.....	34	0.83	nnw.	14.6	1,470	4,850	
1:30	970.3	−1.3	35	nnw.	7.2	1,568	834.8	−11.1	0.58	33	0.78	nnw.	14.8	1,537	5,170	
						1,750	815.2	−12.0	.....	29	0.63	nnw.	14.0	1,715	6,590	
						2,000	789.0	−13.3	.....	23	0.44	nw.	13.0	1,960	7,980	
						2,250	763.8	−14.6	.....	17	0.29	nw.	11.9	2,205	8,630	
3:26	970.6	−1.4	30	nnw.	6.3	2,338	754.8	−15.1	0.52	15	0.24	nw.	11.5	2,291	8,890	
						2,500	739.2	−15.9	.....	15	0.23	nw.	11.4	2,450	9,380	
						2,750	715.2	−16.8	.....	15	0.21	nw.	11.2	2,694	10,390	
						3,000	691.6	−17.8	.....	15	0.19	nw.	11.0	2,939	10,170	
3:46	970.6	−1.4	28	nnw.	4.5	3,183	674.1	−18.7	0.44	15	0.17	nw.	10.9	3,118	.....	
						3,000	691.4	−17.9	.....	15	0.19	nw.	10.7	2,939	9,620	
						2,750	714.5	−16.8	.....	15	0.21	nw.	10.4	2,694	8,680	
						2,500	738.2	−15.7	.....	15	0.23	nw.	10.1	2,450	7,730	
4:00	970 6	−1.6	23	nnw.	4.0	2,332	754.8	−15.2	0.42	15	0.24	nw.	10.0	2,285	7,100	
						2,250	763.0	−14.9	.....	16	0.27	nw.	9.9	2,205	6,800	
						2,000	788.0	−13.8	.....	18	0.33	nw.	9.5	1,960	5,890	
						1,750	814.5	−12.8	.....	20	0.40	nnw.	9.2	1,715	4,780	
						1,500	842.2	−11.7	.....	22	0.49	nnw.	8.8	1,470	3,510	
4:20	970.7	−2.1	30	nnw.	4.5	1,427	850.5	−11.4	0.88	23	0.53	nnw.	8.7	1,399	3,140	
						1,250	870.3	−9.8	.....	26	0.69	nnw.	9.0	1,225	2,400	
						1,000	899.0	−7.7	.....	31	0.99	nnw.	9.5	980	1,510	
4:41	970.8	−2.5	36	nnw.	4.9	753	927.8	−5.5	0.76	35	1.34	nnw.	10.0	738	0	
						500	958.2	−3.6	.....	37	1.67	nnw.	6.4	490	0	
4:46	970.8	−2.8	37	nnw.	4.9	396	970.8	−2.8	.....	37	1.79	nnw.	4.9	388	.....	Few Ci.St., wsw.

TABLE 10.—*Free-air data from kite flights at Drexel Aerological Station, December, 1916*—Continued.

December 9, 1916.

Surface.						At different heights above sea.										Remarks.
Time.	Pressure.	Temperature.	Relative humidity.	Wind.		Altitude.	Pressure.	Temperature.	$\frac{\Delta t}{100\ m.}$	Humidity.		Wind.		Potential.		
				Dir.	Vel.					Rel.	Vap. pres.	Dir.	Vel.	Gravity.	Electric.	
P. M.	*mb.*	°*C.*	%		*m. p. s.*	*m.*	*mb.*	°*C.*		%	*mb.*		*m. p. s.*	10^5 *ergs.*	*volts.*	
2:38	968.3	4.0	26	sse.	4.0	396	968.3	4.0	.....	26	2.11	sse.	4.0	388	.....	2/10 Cl., w.; 2/10 Cl.St., w.; few A.Cu., wsw.
						500	955.3	2.6	.....	29	2.14	sse.	4.6	490	0	
						750	925.1	−0.9	.....	36	2.04	s.	5.2	735	0	
3:30	968.2	3.4	30	sse.	3.6	766	924.7	−1.1	1.38	36	2.01	s.	5.8	751	0	
						1,000	897.3	−1.7	.....	35	1.86	s.	6.5	980	2,750	
3:49	968.2	2.8	26	se.	3.6	1,200	875.7	−2.7	0.37	34	1.66	ssw.	7.5	1,176	3,880	
						1,250	870.3	−2.7	.....	33	1.61	ssw.	8.2	1,225	4,100	
						1,500	843.5	−2.6	.....	30	1.48	ssw.	11.5	1,470	5,560	
3:51	968.2	2.7	25	se.	3.1	1,548	837.9	−2.6	−0.03	29	1.43	ssw.	12.1	1,517	5,830	4/10Cl., w.; 3/10Cl.St., w.
						1,750	816.7	−4.2	.....	28	1.20	sw.	12.4	1,715	6,910	
						2,000	791.0	−6.1	.....	27	0.99	sw.	12.8	1,960	7,820	
4:07	968.2	2.4	27	se.	3.6	2,234	768.0	−7.9	0.77	26	0.81	wsw.	13.2	2,184	9,250	
						2,250	766.2	−7.9	.....	26	0.81	wsw.	13.2	2,205	9,390	
						2,500	742.2	−8.1	.....	29	0.89	wsw.	13.8	2,450	11,680	
4:11	968.2	2.2	28	se.	3.6	2,514	740.8	−8.1	0.07	29	0.89	wsw.	13.8	2,464	11,820	
						2,750	718.9	−9.6	.....	31	0.83	wsw.	14.5	2,694	13,900	
						3,000	695.6	−11.2	.....	34	0.79	wsw.	15.2	2,939	15,170	
						3,250	672.8	−12.7	.....	36	0.73	wsw.	15.9	3,184	16,440	
4:28	968.2	1.2	31	se.	3.6	3,444	656.4	−13.9	0.62	38	0.70	wsw.	16.5	3,374	17,430	2/10Ci., w.; 2/10Cl.St., w.
						3,500	651.0	−14.1	.....	38	0.68	wsw.	16.4	3,429	17,720	
4:35	968.2	0.9	34	se.	3.6	3,673	636.3	−14.8	0.32	40	0.67	wsw.	16.2	3,598	18,600	
						3,500	651.1	−14.4	.....	43	0.75	wsw.	15.2	3,429	17,580	
4:45	968.2	0.8	33	se.	4.0	3,352	663.9	−14.0	0.60	45	0.81	wsw.	14.3	3,284	16,820	
						3,250	673.3	−13.4	.....	45	0.86	wsw.	14.0	3,184	16,430	
						3,000	695.7	−11.9	.....	44	0.96	wsw.	13.1	2,939	15,270	
						2,750	719.0	−10.4	.....	42	1.05	wsw.	12.5	2,694	14,120	
						2,500	742.3	−8.9	.....	41	1.17	wsw.	11.7	2,450	11,270	
5:00	968.2	0.8	29	se.	4.0	2,312	760.0	−7.8	0.00	40	1.26	wsw.	11.1	2,266	10,150	
						2,250	776.2	−7.8	.....	39	1.23	wsw.	11.7	2,205	9,790	
5:05	968.2	0.8	29	se.	4.0	2,027	788.5	−7.8	0.94	37	1.17	wsw.	14.0	1,986	8,450	
						2,000	790.4	−7.5	.....	36	1.16	wsw.	13.8	1,960	8,300	
						1,750	816.7	−5.2	.....	31	1.22	wsw.	11.9	1,715	6,820	
5:12	968.2	1.0	27	se.	4.0	1,559	836.7	−3.4	0.00	27	1.24	wsw.	10.5	1,528	6,000	
						1,500	843.5	−3.4	.....	26	1.20	wsw.	10.7	1,470	5,620	
5:17	968.2	0.7	29	se.	4.0	1,347	859.7	−3.4	0.64	23	1.06	sw.	11.2	1,320	4,460	
						1,250	870.3	−2.8	.....	24	1.16	sw.	10.5	1,225	3,690	
						1,000	897.8	−1.2	.....	26	1.44	ssw.	8.6	980	2,680	
5:25	968.2	0.0	29	ese.	3.6	754	926.0	0.4	0.33	27	1.70	s.	6.7	739	1,670	
5:33	968.2	−0.1	30	ese.	3.6	513	954.2	1.2	−0.20	29	1.93	sse.	6.7	503	0	
						500	955.6	1.0	.....	29	1.91	sse.	4.7	490	0	4/10Cl., w.
5:36	968.2	−0.2	31	ese.	2.7	396	968.2	−0.2	.....	31	1.86	ese.	2.7	388	.....	4/10Cl.St., w.

December 10, 1916 (No. 1).

A. M.																
8:37	969.1	−2.6	68	se.	2.7	396	969.1	−2.6	.....	68	3.35	se.	2.7	388	.....	2/10 Cl., sw.; 4/10 Cl.St., sw.; 4/10 A.St., ssw.
						500	955.9	−2.2	.....	63	3.21	s.	4.0	490	.....	
8:48	969.1	−2.5	66	se.	3.1	644	939.4	−1.7	−0.36	56	2.97	s.	5.8	631	1,040	
						750	926.5	−2.3	.....	57	2.87	s.	5.3	735	.....	
9:35	969.6	−1.9	63	e.	2.7	966	902.5	−3.4	0.45	59	2.71	s.	4.3	947	.....	
						750	927.6	−2.6	.....	59	2.90	s.	4.0	735	.....	
9:45	969.7	−1.7	61	e.	1.8	639	940.6	−2.2	0.00	59	3.00	s.	3.8	626	.....	
						500	957.4	−2.2	.....	64	3.26	ese.	2.7	490	.....	
10:00	969.9	−2.2	67	ene.	1.8	396	969.9	−2.2	.....	67	3.41	ene.	1.8	388	.....	10/10 A.St., ssw.

December 10, 1916 (No. 2).

P. M.																
1:21	967.7	−1.4	64	nne.	5.8	396	967.7	−1.4	.....	64	3.48	nne.	5.8	388	.....	2/10 Cl.St., sw.; 8/10 A.St., s.
						500	954.7	−2.3	.....	66	3.33	nne.	6.0	490	.....	
1:28	967.6	−1.4	64	nne.	4.9	664	935.5	−3.7	0.86	69	3.09	nne.	6.4	651	330	
						750	924.3	−3.9	.....	68	3.00	nne.	6.5	735	1,435	
						1,000	895.5	−4.6	.....	65	2.70	ene.	6.7	980	2,920	
						1,250	868.4	−5.3	.....	63	2.46	e.	7.0	1,225	3,730	
1:54	967.3	−1.6	64	ne.	5.4	1,299	862.7	−5.4	0.28	62	2.41	e.	7.0	1,273	3,960	
						1,500	841.3	−6.3	.....	59	2.12	e.	6.8	1,470	4,900	
						1,750	815.0	−7.3	.....	56	1.84	ese.	6.4	1,715	6,040	
2:19	967.2	−1.7	61	nne.	7.2	1,791	809.9	−7.5	0.43	55	1.78	ese.	6.4	1,755	6,300	
						2,000	789.0	−9.6	.....	62	1.67	ese.	6.1	1,960	6,780	
3:29	967.2	−1.9	63	n.	5.8	2,187	769.5	−11.4	0.98	69	1.58	ese.	5.8	2,143	8,000	
						2,250	763.9	−11.8	.....	70	1.55	ese.	5.9	2,205	7,810	
						2,500	738.8	−13.2	.....	72	1.40	ese.	6.2	2,450	7,040	St. base at about 2,550 m.
						2,750	714.9	−14.6	.....	74	1.27	e.	6.5	2,694	.....	
						3,000	691.4	−16.0	.....	76	1.14	e.	6.9	2,939	.....	
3:36	967.2	−1.9	60	nne.	5.8	3,163	676.2	−16.9	0.56	77	1.06	e.	7.1	3,099	.....	
						3,000	691.3	−16.0	.....	76	1.14	e.	6.8	2,939	.....	
						2,750	714.8	−14.6	.....	74	1.27	e.	6.2	2,694	.....	
						2,500	738.5	−13.1	.....	73	1.43	e.	5.7	2,450	5,920	
						2,250	763.3	−11.7	.....	71	1.58	e.	5.2	2,205	5,340	
3:58	967.2	−2.0	60	nne.	5.8	2,104	777.5	−10.9	0.64	70	1.58	e.	4.9	2,062	5,000	
						2,000	788.2	−10.2	.....	70	1.78	e.	5.5	1,960	4,760	
						1,750	814.3	−8.6	.....	71	2.09	e.	7.1	1,715	4,050	
						1,500	840.5	−7.0	.....	71	2.40	ene.	8.6	1,470	2,330	
4:14	967.3	−2.2	59	nne.	6.7	1,276	865.1	−5.6	0.50	72	2.74	ene.	10.0	1,251	2,700	
						1,250	868.2	−5.5	.....	72	2.76	ene.	10.5	1,225	2,601	
4:18	967.4	−2.3	61	nne.	6.3	1,076	887.5	−4.6	−0.52	74	3.07	ne.	13.6	1,055	1,945	
						1,000	896.5	−5.0	.....	74	2.97	ne.	11.7	980	1,655	
4:25	967.4	−2.4	62	ne.	7.6	846	913.8	−5.8	0.76	75	2.81	ne.	7.9	829	1,075	
						750	925.5	−5.1	.....	72	2.87	ne.	7.6	735	.....	
						500	955.0	−3.2	.....	65	3.04	nne.	7.0	490	.....	
4:31	967.5	−2.4	62	nne.	6.7	396	967.5	−2.4	.....	62	3.10	nne.	6.7	388	.....	10/10 St., ene.

TABLE 10.—*Free-air data from kite flights at Drexel Aerological Station, December, 1916*—Continued.

December 11, 1916.

Surface.						At different heights above sea.										Remarks.
Time.	Pressure.	Temperature.	Relative humidity.	Wind.		Altitude.	Pressure.	Temperature.	Δt / 100 m.	Humidity.		Wind.		Potential.		
				Dir.	Vel.					Rel.	Vap. pres.	Dir.	Vel.	Gravity.	Electric.	
A. M.	*mb.*	°*C.*	%		*m. p. s.*	*m.*	*mb.*	°*C.*		%	*mb.*		*m. p. s.*	10^5 *ergs.*	*volts.*	
9:11	972.0	−12.5	85	n.	7.2	396	972.0	−12.5		85	1.76	n.	7.2	388		6/10 Cl., w.
						500	958.8	−13.4		86	1.64	n.	8.6	490	0	
						750	927.7	−15.5		89	1.40	n.	12.0	735	0	
9:20	972.0	−12.4	85	n.	5.4	796	922.2	−15.9	0.85	89	1.35	n.	12.6	780	0	4/10 Cl., w.
						1,000	897.6	−14.6		91	1.56	n.	10.0	980	4,120	
						1,250	868.8	−13.0		94	1.86	nnw.	6.8	1,225	6,680	
10:22	971.9	−11.3	79	nnw.	8.5	1,363	855.8	−12.3	−0.64	95	2.00	nnw.	5.4	1,336	12,500	2/10 Cl., w.; 2/10 A. Cu., nnw.
						1,500	840.5	−12.6		93	1.91	nnw.	5.8	1,470		
						1,750	813.0	−13.2		89	1.74	nnw.	6.6	1,715		
11:02	971.6	−10.7	83	nnw.	9.4	2,000	786.6	−13.7		85	1.58	nw.	7.3	1,960		
						2,202	766.2	−14.1	0.21	82	1.47	nw.	7.9	2,158		2/10 A. Cu., nnw.; 7/10 St. Cu. nnw.
						2,250	761.3	−14.4		80	1.39	nw.	8.2	2,205		
						2,500	736.3	−15.8		68	1.04	nw.	9.5	2,450		
						2,750	712.3	−17.2		57	0.76	nw.	10.8	2,694		
P. M.																
12:06	970.7	−10.3	75	nnw.	6.7	2,813	705.5	−17.6	0.44	54	0.70	nw.	11.1	2,756		
						2,750	712.4	−17.4		55	0.73	nw.	10.8	2,694		
						2,500	737.1	−16.6		60	0.85	nw.	9.6	2,450		
						2,250	762.2	−15.9		66	1.00	nw.	8.5	2,205		
						2,000	787.8	−15.1		71	1.16	nw.	7.3	1,960		
						1,750	814.0	−14.4		77	1.34	nw.	6.2	1,715		
						1,500	840.5	−13.6		82	1.54	nw.	5.0	1,470	4,120	
12:27	970.1	−10.4	73	nnw.	7.2	1,316	859.5	−13.0	−1.75	86	1.70	nw.	4.1	1,290	2,740	
						1,250	867.3	−14.2		90	1.60	nw.	5.2	1,225	3,200	
12:51	969.5	−10.0	74	nw.	7.2	1,105	883.1	−16.7	0.56	98	1.38	nnw.	7.6	1,083	3,300	
						1,000	895.3	−16.1		97	1.45	nnw.	7.7	980	2,240	
1:05	969.2	− 9.9	74	nw.	6.3	786	921.0	−14.9	1.36	96	1.60	nnw.	8.0	771	835	
						750	925.4	−14.4		94	1.64	nnw.	7.8	735	0	
						500	956.4	−11.0		80	1.90	nnw.	6.5	490	0	
1:12	969.1	− 9.6	74	nnw.	5.8	396	969.1	− 9.6		74	1.99	nnw.	5.8	388		4/10 St. Cu., nnw.

December 12, 1916.

A. M.																
9:17	961.1	−11.0	93	nw.	6.7	396	961.1	−11.0		93	2.20	nw.	6.7	388		6/10 Cl. St., nw; 2/10 A. St.; wnw.; 2/10 A. Cu., wnw.
						500	948.3	−12.2		93	1.98	nw.	9.4	490		
						750	917.6	−14.0		93	1.68	nnw.	13.4	735		
9:27	961.2	−11.1	93	nnw.	6.3	839	906.9	−15.1	1.19	93	1.52	nnw.	15.7	823	3,280	
						1,000	887.7	−14.3		91	1.60	nnw.	13.9	980	5,310	
9:34	961.4	−11.4	93	nnw.	6.7	1,151	870.3	−13.5	−0.51	90	1.70	nnw.	12.2	1,128	7,220	
						1,250	859.2	−13.6		88	1.65	nnw.	13.2	1,225	8,190	
						1,500	831.5	−13.9		82	1.50	nw.	15.8	1,470	10,440	
9:56	961.7	−11.2	86	nnw.	9.8	1,618	818.8	−14.0	0.11	79	1.43	nw.	17.0	1,586	11,140	9/10 Cl. St., nw.; few St. Cu., nnw.
						1,750	804.8	−14.5		76	1.31	nw.	17.0	1,715	11,580	
						2,000	779.2	−15.6		71	1.11	nw.	17.1	1,960	12,360	
10:01	961.8	−11.2	86	nnw.	8.9	2,011	777.6	−15.6	0.41	71	1.11	nw.	17.1	1,911	12,390	
						2,250	753.7	−15.7		68	1.05	nw.	19.5	2,205	13,680	
						2,500	728.6	−15.9		65	0.99	nw.	22.0	2,450	17,220	
10:35	962.4	−11.2	78	nnw.	8.5	2,506	728.4	−15.9	0.02	65	0.99	nw.	22.1	2,456	18,000	1/10 Cl. St., nw.; 8/10 St. Cu. nnw.
						2,500	728.6	−15.9		65	0.99	nw.	22.0	2,450	17,970	
						2,250	753.7	−16.0		68	1.02	nw.	19.3	2,205	16,650	
11:15	963.0	−11.2	79	nnw	8.9	2,057	772.9	−16.0	0.47	70	1.05	nw.	17.2	2,016	16,300	2/10 Cl. St., nw; 2/10 Cl. Cu., nnw.; few St. Cu., nnw.
						2,000	779.1	−15.7		70	1.08	nw.	17.4	1,960	16,010	
						1,750	805.1	−14.6		68	1.16	nnw.	18.5	1,715	13,050	
11:22	963.1	−11.4	82	nnw.	8.9	1,735	806.9	−14.5	−0.76	68	1.18	nnw.	18.6	1,700	14,680	
						1,500	832.4	−16.3		81	1.18	nnw.	15.3	1,470	11,300	
11:34	963.2	−11.4	78	nnw.	10.3	1,406	843.0	−17.0	0.34	86	1.18	nnw.	14.0	1,378	10,390	10/10 A. Cu., nw.; few St. Cu., nnw.
						1,250	860.8	−16.5		89	1.27	nnw.	14.4	1,225	7,440	
						1,000	890.0	−15.6		93	1.45	nnw.	15.0	980	7,380	
11:50	963.4	−11.2	78	nnw.	9.8	791	914.6	−14.9	0.89	97	1.62	nnw.	15.5	776	5,400	
						750	920.3	−14.5		95	1.64	nnw.	14.8	735		
						500	951.0	−12.3		86	1.81	nnw.	10.6	490		
11:56	963.5	−11.4	82	nnw.	8.9	396	963.5	−11.4		82	1.88	nnw.	8.9	388		Few A. Cu., nw.; 10/10 St. Cu., nnw.

December 13, 1916.

A. M.																
8:04	974.0	−22.9	100	nw.	2.2	396	974.0	−22.9		100	0.77	nw.	2.2	388		Cloudless.
						500	960.4	−22.2		98	0.81	nw.	5.4	490	0	
8:05	974.1	−22.9	100	nnw.	2.2	597	947.8	−21.5	−0.70	96	0.85	nw.	8.4	585	0	
8:11	974.1	−22.8	100	nnw.	2.2	709	933.7	−17.8	−3.31	94	1.19	nnw.	6.4	695	1,830	
						750	929.0	−17.7		94	1.20	nnw.	6.8	735		
						1,000	898.9	−17.2		92	1.23	nw.	9.3	980		
10:40	975.6	−19.6	86	wnw.	3.6	1,180	878.3	−16.8	−0.21	91	1.26	w.	11.1	1,157		2/10 Cl., wnw.
						1,250	870.0	−16.9		89	1.23	w.	11.2	1,225	(*)	
						1,500	841.8	−17.2		81	1.09	w.	11.7	1,470	(*)	
						1,750	814.2	−17.5		73	0.95	wsw	12.2	1,715	(*)	
10:57	975.7	−19.5	83	w.	3.6	1,911	796.9	−17.6	0.12	68	0.88	wsw.	12.5	1,873		
						2,000	787.3	−17.5		65	0.84	wsw.	13.1	1,960	(*)	
						2,250	761.0	−17.2		55	0.74	wsw.	15.0	2,205		
						2,500	736.0	−16.8		45	0.62	w.	17.0	2,450	(*)	
11:21	975.3	−19.2	85	w.	3.6	2,658	721.0	−16.6	−0.13	39	0.55	w.	18.2	2,604		
						2,750	712.4	−16.7		37	0.52	w.	19.0	2,694	(*)	
						3,000	689.4	−16.9		32	0.44	wnw.	21.2	2,939		
11:45	975.0	−18.3	77	wnw.	3.1	3,025	687.0	−16.9	0.12	32	0.44	wnw.	21.4	2,964	(*)	3/10 Cl., wnw.
						3,000	689.4	−16.9		33	0.46	wnw.	21.3	2,939	(*)	
						2,750	712.4	−16.5		40	0.57	wnw.	20.2	2,694	(*)	
						2,500	736.1	−16.0		46	0.69	wnw.	19.2	2,450		

(*) More than 10,000 volts from 10:45 a. m to 1 p. m.

TABLE 10.—*Free-air data from kite flights at Drexel Aerological Station, December, 1916*—Continued.

December 13, 1916—Continued.

Surface.						At different heights above sea.										Remarks.
Time.	Pressure.	Temperature.	Relative humidity.	Wind.		Altitude.	Pressure.	Temperature.	Δt / 100 m.	Humidity.		Wind.		Potential.		
				Dir.	Vel.					Rel.	Vap. pres.	Dir.	Vel.	Gravity.	Electric.	
A. M.	*mb.*	°*C.*	%		*m.p.s.*	*m.*	*mb.*	°*C.*		%	*mb.*		*m.p.s.*	10^5 *ergs.*	*volts.*	
						2,250	761.2	−15.6	.....	53	0.83	wnw.	18.1	2,205	(*)	
P. M.																
12:22	974.2	−17.6	78	nw.	2.7	2,159	770.6	−15.5	−0.30	56	0.88	wnw.	17.7	2,116	(*)	
						2,000	787.0	−16.0	.....	62	0.93	wnw.	17.3	1,960	.....	
						1,750	813.8	−16.7	.....	71	1.00	wnw.	16.5	1,715	(*)	
12:38	973.8	−17.4	83	nw.	1.3	1,663	823.6	−17.0	0.33	74	1.01	wnw.	16.3	1,630	(*)	2/10 Ci., wnw.
						1,500	841.0	−16.5	.....	68	0.97	wnw.	15.3	1,470	(*)	
						1,250	868.7	−15.6	.....	59	0.92	w.	12.9	1,225	(*)	
1:02	973.3	−16.8	72	w.	1.8	1,123	883.3	−15.2	−0.70	55	0.89	w.	11.9	1,101	.....	
						1,000	897.6	−16.1	.....	57	0.85	w.	10.0	980	.....	
						750	928.2	−17.8	.....	60	0.76	w.	6.2	735	.....	
1:15	973.2	−16.1	71	wsw.	1.8	635	942.7	−18.6	0.92	62	0.73	w.	4.4	622	.....	
						500	960.0	−17.4	.....	69	0.91	wsw.	2.9	490	.....	
1:20	973.1	−16.4	74	wsw.	1.8	396	973.1	−16.4	.....	74	1.07	wsw.	1.8	388	.....	1/10 Ci., wnw.

(*) More than 10,000 volts from 10:45 a. m. to 1:00 p. m.

December 14, 1916 (No. 1).

A. M.																
8:06	980.1	−23.2	100	nnw.	3.6	396	980.1	−23.2	.....	100	0.75	nnw.	3.6	388	.....	1/10 Ci., w.
						500	966.3	−22.1	.....	100	0.84	nnw.	6.3	490	.....	
8:10	980.1	−23.2	100	nnw.	3.6	660	945.6	−20.5	−1.02	100	0.98	nnw.	10.4	647	.....	
						750	934.8	−20.3	.....	99	0.99	nnw.	11.3	735	.....	
8:24	980.2	−22.7	100	nnw.	3.6	915	913.7	−19.8	−0.27	96	1.01	nnw.	13.0	897	5,500	
						1,000	903.6	−19.3	.....	89	0.98	nnw.	13.3	980	6,640	
8:37	980.3	−22.4	100	nnw.	3.6	1,229	876.2	−18.1	−0.54	71	0.87	nnw.	14.1	1,205	9,700	
						1,250	873.4	−18.0	.....	70	0.87	nnw.	14.3	1,225	(†)	
						1,500	844.8	−17.1	.....	60	0.81	nnw.	16.7	1,470	(†)	
						1,750	818.0	−16.1	.....	50	0.74	nw.	18.7	1,715	(†)	
9:05	980.4	−21.6	100	nw.	4.0	1,971	794.0	−15.3	−0.38	41	0.66	nw.	20.6	1,932	(†)	
						2,000	791.2	−15.4	.....	41	0.65	nw.	20.5	1,960	(†)	
						2,250	765.0	−16.3	.....	39	0.57	nw.	19.7	2,205	(†)	
						2,500	739.0	−17.3	.....	38	0.51	nw.	18.9	2,450	(†)	Few Cl.St., w.
						2,750	715.0	−18.2	.....	36	0.44	nw.	18.1	2,694	(†)	
						3,000	691.6	−19.1	.....	35	0.39	nw.	17.3	2,939	(†)	
10:08	980.4	−20.4	86	nw.	4.0	3,082	684.5	−19.4	0.37	34	0.37	nw.	17.0	3,020	(†)	
						3,250	669.1	−20.0	.....	35	0.36	nw.	17.2	3,184	(†)	
						3,500	647.5	−20.9	.....	37	0.35	wnw.	17.6	3,429	(†)	
						3,750	626.0	−21.8	.....	39	0.34	wnw.	17.9	3,673	(†)	
11:06	979.9	−18.9	83	nw.	4.5	3,875	614.7	−22.0	0.36	40	0.34	wnw.	18.1	3,796	(†)	
						3,750	626.0	−21.2	.....	40	0.36	wnw.	18.3	3,673	(†)	
						3,500	647.5	−20.4	.....	39	0.39	wnw.	18.7	3,429	(†)	
						3,250	669.1	−19.4	.....	39	0.43	wnw.	19.1	3,184	(†)	Few Cl.St., w.
						3,000	691.6	−18.6	.....	39	0.46	wnw.	19.5	2,939	(†)	
						2,750	715.0	−17.6	.....	38	0.49	wnw.	19.9	2,694	(†)	
11:41	978.9	−16.4	74	wnw.	4.9	2,625	727.3	−17.2	0.31	38	0.51	wnw.	20.1	2,572	(†)	
						2,500	739.0	−16.8	.....	38	0.53	wnw.	19.3	2,450	(†)	
11:50	978.7	−16.5	77	wnw.	3.6	2,306	758.7	−16.2	0.09	37	0.55	nw.	18.1	2,260	(†)	
						2,250	764.2	−16.1	.....	36	0.54	nw.	17.8	2,205	(†)	
						2,000	790.4	−15.9	.....	34	0.52	nw.	16.5	1,960	(†)	
						1,750	816.5	−15.7	.....	31	0.48	nw.	15.1	1,715	(†)	
P. M.																
12:06	978.3	−15.8	70	w.	4.5	1,667	825.5	−15.6	−0.32	30	0.47	nw.	14.7	1,634	(†)	Cloudless after 12:08 p. m.
12:26	977.8	−16.8	69	wnw.	5.4	1,500	843.2	−16.1	.....	30	0.45	nw.	14.2	1,470	8,720	
						1,256	871.3	−16.9	−0.89	30	0.41	nw.	13.5	1,231	6,400	
						1,250	871.9	−16.9	.....	30	0.41	nw.	13.5	1,225	6,340	
						1,000	901.8	−19.2	.....	32	0.36	wnw.	13.1	980	4,030	
12:33	977.6	−16.8	71	w.	4.9	951	907.5	−19.6	0.34	32	0.34	wnw.	13.0	932	3,580	
						750	933.0	−18.9	.....	44	0.50	w.	8.4	735	1,710	
12:40	977.5	−16.6	71	w.	6.3	715	936.6	−18.8	0.82	46	0.53	w.	7.6	701	1,390	
						500	963.8	−17.1	.....	62	0.84	wsw.	6.4	490	.....	
12:52	977.2	−16.2	70	wsw.	5.8	396	977.2	−16.2	.....	70	1.04	wsw.	5.8	388	.....	

(†) More than 10,000 volts from 8:45 a. m. to 12:08 p. m.

December 14, 1916 (No. 2).

P. M.																
1:33	976.3	−15.0	72	wsw.	5.8	396	976.3	−15.0	.....	72	1.19	wsw.	5.8	388	.....	Cloudless.
1:55	975.8	−14.4	67	w.	5.4	500	963.4	−15.6	.....	73	1.14	w.	6.4	490	1,390	
						581	952.1	−16.1	0.59	74	1.10	w.	6.9	570	.....	
						750	930.9	−16.9	.....	74	1.02	w.	9.7	735	.....	
2:05	975.6	−14.0	66	w.	5.8	950	906.2	−17.9	0.49	74	0.93	wnw.	13.0	931	.....	
						1,000	899.5	−17.6	.....	72	0.93	wnw.	13.1	980	.....	
						1,250	870.0	−16.4	.....	61	0.88	wnw.	13.7	1,225	.....	
						1,500	842.4	−15.1	.....	51	0.83	wnw.	14.2	1,470	.....	
2:20	975.4	−13.7	69	w.	6.7	1,613	829.9	−14.5	−0.51	46	0.80	wnw.	14.5	1,581	(‡)	Few A. Cu., wnw.; from 2:19 p. m. to 4:10 p. m.
						1,750	787.8	−16.4	.....	55	0.80	wnw.	16.6	1,960	(‡)	
						2,000	815.0	−15.2	.....	49	0.79	wnw.	15.2	1,715	(‡)	
						2,250	762.3	−17.6	.....	61	0.79	wnw.	18.0	2,205	(‡)	
2:41	975.0	−13.5	66	w.	6.7	2,461	741.1	−18.6	0.48	66	0.78	wnw.	19.1	2,412	(‡)	
						2,500	737.1	−18.5	.....	66	0.79	wnw.	19.3	2,450	(‡)	
						2,750	713.0	−17.9	.....	70	0.88	w.	20.9	2,694	(‡)	
2:55	974.8	−13.1	60	w.	7.2	2,851	703.2	−17.7	−0.23	71	0.91	w.	21.5	2,793	(‡)	
						3,000	689.4	−18.2	.....	67	0.82	w.	22.2	2,939	(‡)	
3:21	974.2	−13.0	63	w.	7.6	3,227	668.5	−19.1	0.36	61	0.68	wnw.	23.2	3,161	(‡)	
						3,000	689.8	−18.3	.....	54	0.65	wnw.	23.9	2,939	(‡)	
3:50	973.5	−12.2	62	wsw.	6.7	2,746	713.2	−17.4	−0.15	47	0.62	wnw.	24.6	2,690	(‡)	

(‡) More than 10,000 volts from 2:08 p. m. to 4:35 p. m.

TABLE 10.—*Free-air data from kite flights at Drexel Aerological Station, December, 1916*—Continued.

December 14, 1916 (No. 2)—Continued.

Surface.						At different heights above sea.											
Time.	Pressure.	Temperature.	Relative humidity.	Wind.		Altitude.	Pressure.	Temperature.	$\frac{\Delta t}{100\ m.}$	Humidity.		Wind.		Potential.		Remarks.
				Dir.	Vel.					Rel.	Vap. pres.	Dir.	Vel.	Gravity.	Electric.	
P. M.	*mb.*	°*C.*	%		*m. p. s.*	*m.*	*mb.*	°*C.*		%	*mb.*		*m. p. s.*	10^5 *ergs.*	*volts.*	
						2,500	737.0	−17.8		59	0.75	wnw.	22.5	2,450	(‡)	
						2,250	762.2	−18.1		72	0.89	wnw.	20.5	2,205	(‡)	
4:16	973.0	−12.1	62	wsw.	5.4	2,208	766.0	−18.2	0.49	74	0.90	wnw.	20.1	2,164	(‡)	Cloudless.
						2,000	787.6	−17.2		72	0.96	wnw.	20.3	1,960	(‡)	
4:35	972.5	−12.4	68	sw.	6.7	1,750	814.3	−15.9		70	1.06	nw.	20.5	1,715	(‡)	
						1,558	834.7	−15.0	0.42	69	1.14	nw.	20.6	1,527	(‡)	
						1,500	841.4	−14.8		69	1.16	nw.	19.9	1,470	(‡)	
						1,250	869.0	−13.7		67	1.25	wnw.	17.1	1,225	(‡)	
4:45	972.3	−12.6	68	sw.	5.4	1,176	877.4	−13.4	−0.58	66	1.26	wnw.	16.3	1,153	8,500	
4:49	972.2	−12.7	70	sw.	5.8	1,005	897.4	−14.4	0.25	73	1.27	w.	16.7	985	5,690	W. wind at 600 m.
4:56	972.1	−13.0	75	sw.	5.8	762	926.5	−13.8	0.22	76	1.40	wsw.	15.5	747	1,700	
						750	927.7	−13.8		76	1.40	wsw.	15.2	735		
						500	959.0	−13.2		75	1.46	sw.	8.9	490		
5:02	972.0	−13.0	75	sw.	6.3	396	972.0	−13.0		75	1.48	sw.	6.3	388		

(‡) More than 10,000 volts from 2:08 p. m. to 4:35 p. m.

December 14, 1916 (No. 3).

P. M.																
5:48	970.9	−13.3	74	ssw.	7.2	396	970.9	−13.3		74	1.43	ssw.	7.2	388		Cloudless. Wind sw. at 50 m.
						500	957.5	−12.3		74	1.56	sw.	10.4	490		
5:51	970.8	−13.3	74	ssw.	7.2	639	940.4	−10.9	−0.99	75	1.79	wsw.	14.7	626		
						750	926.5	−11.4		74	1.69	wsw.	14.8	735		
						1,000	897.0	−12.6		73	1.50	wsw.	14.9	980	6,120	
6:18	970.2	−12.8	75	ssw.	7.6	1,104	884.6	−13.1	0.47	72	1.41	wsw.	15.0	1,082	7,800	
						1,250	868.4	−13.4		71	1.36	wsw.	15.2	1,225	8,940	
						1,500	840.0	−13.9		69	1.28	w.	15.5	1,470	10,880	
						1,750	812.4	−14.4		67	1.17	w.	15.8	1,715		
6:41	969.6	−12.6	77	ssw.	8.0	1,818	804.7	−14.5	0.20	67	1.16	w.	15.9	1,782		
6:45	969.6	−12.7	78	ssw.	8.5	1,863	800.0	−11.2	−7.33	52	1.21	w.	14.4	1,826	(†)	
6:58	969.2	−12.8	80	ssw.	8.0	1,972	788.3	−10.8	−0.37	40	0.97	w.	16.8	1,933	(†)	
						2,000	785.4	−11.0		40	0.95	w.	17.0	1,960	(†)	
						2,250	758.1	−12.7		41	0.84	w.	18.5	2,205	(†)	
						2,500	733.0	−14.3		42	0.74	w.	20.1	2,450	(†)	
						2,750	710.2	−16.0		43	0.64	w.	21.6	2,694	(†)	
7:40	968.3	−12.1	82	ssw.	9.4	2,889	698.2	−16.9	0.67	44	0.61	w.	22.5	2,831	(†)	
7:43	968.3	−12.1	81	ssw.	9.8	2,981	690.5	−16.0	−0.49	45	0.68	w.	21.9	2,921	(†)	
7:56	968.0	−12.1	81	ssw.	8.5	2,920	697.1	−16.0	0.59	50	0.75	w.	21.0	2,861	(†)	
						2,750	713.3	−15.0		48	0.79	w.	21.3	2,694	(†)	
						2,500	737.0	−13.5		44	0.83	w.	21.8	2,450	(†)	
						2,250	760.2	−12.0		40	0.87	w.	22.3	2,205	(†)	
8:16	967.5	−12.1	81	ssw.	10.7	2,226	763.2	−11.9	0.42	40	0.88	w.	22.3	2,181	(†)	
						2,000	786.0	−11.0		30	0.71	w.	21.0	1,960	(†)	
8:35	967.1	−12.0	81	ssw.	9.4	1,940	791.9	−10.7	−0.45	27	0.66	w.	20.7	1,901	(†)	
						1,750	811.8	−11.5		32	0.73	w.	17.0	1,715	(†)	
8:52	966.7	−12.0	81	sw.	9.4	1,649	822.4	−12.0	0.77	35	0.76	w.	15.0	1,616	(†)	
						1,500	838.2	−10.9		39	0.93	w.	16.6	1,470	(†)	
						1,250	865.5	−8.9		47	1.34	wsw.	19.4	1,225	(†)	
9:05	966.3	−12.0	81	sw.	8.5	1,049	888.3	−7.4	0.27	53	1.73	wsw.	21.6	1,028	5,500	
						1,000	893.6	−7.3		54	1.78	wsw.	21.1	980	4,950	
						750	922.5	−6.6		58	2.03	sw.	18.7	735	2,160	
9:20	965.8	−11.6	81	sw.	9.4	718	926.3	−6.5	−1.77	58	2.05	sw.	18.4	704	1,800	
						500	952.6	−10.4		76	1.91	ssw.	12.9	490		
9:33	965.4	−12.2	85	ssw.	10.3	396	965.4	−12.2		85	1.85	ssw.	10.3	388		Cloudless.

(†) More than 11,000 volts from 6:43 p. m. to 8:50 p. m.

December 14, 1916 (No. 4).

P. M.																
10:25	963.8	−12.4	92	sw.	10.3	396	963.8	−12.4		92	1.92	sw.	10.3	388		Few Cl.St., nw.
						500	951.0	−10.7		79	1.93	sw.	20.7	490		
10:31	963.6	−12.2	88	sw.	8.0	708	925.5	−7.3	−1.63	72	2.37	sw.	25.9	694	1,105	Moonlight.
						750	920.8	−5.0		56	2.25	wsw.	26.6	735	1,230	1/10 Ci.St., nw. at 10:42 p. m.
10:47	963.2	−12.0	81	sw.	8.9	901	902.6	−4.3	−1.55	51	2.17	wsw.	26.8	883	1,700	Arc of 22° lunar halo faint.
						1,000	891.8	−4.7		49	2.02	wsw.	26.2	980		
						1,250	863.7	−5.7		44	1.66	wsw.	24.6	1,225		
10:55	962.9	−11.7	81	sw.	8.9	1,354	851.7	−6.1	0.40	42	1.53	wsw.	24.0	1,327		1 10 Cl.St.,nw.; few St.Cu.,wsw.
																Kite broke away at 10:55 p. m.

December 15, 1916.

A. M.																
8:29	969.6	−14.0	78	nw.	5.4	396	969.6	−14.0		78	1.41	nw.	5.4	388		Few Cl.St., nw.; few A.St., nw.
						500	956.5	−14.4		78	1.36	nw.	9.3	490		
						750	925.6	−15.3		77	1.23	nw.	18.7	735		
8:40	969.8	−14.0	78	nw.	5.4	831	915.6	−15.6	0.37	77	1.20	nw.	21.7	815	680	
8:42	969.9	−13.9	78	nw.	5.4	963	899.9	−14.6	−0.76	76	1.30	nw.		944	1,910	
						1,000	896.0	−14.6		75	1.28	nw.		980	2,260	
						1,250	867.1	−14.5		65	1.12	nw.		1,225	4,750	
8:53	970.1	−13.8	73	nw.	5.4	1,260	865.6	−14.5	−0.03	65	1.12	nw.		1,235	4,870	
9:03	970.3	−13.6	74	nw.	6.3	1,445	844.7	−15.0	0.27	61	1.01	nw.		1,416	7,000	
						1,500	839.3	−14.9		60	1.00	nw.		1,470	(*)	
						1,750	812.1	−14.5		58	1.00	nw.		1,715	(*)	
9:22	970.4	−13.4	72	nw.	6.3	1,972	788.0	−14.2	−0.35	56	1.00	nw.		1,933	(*)	
9:35	970.5	−13.2	70	nw.	4.9	1,826	803.7	−15.0	0.21	53	0.87	nw.		1,790	(*)	
						1,750	812.1	−14.8		53	0.89	nw.		1,715	(*)	
						1,500	839.0	−14.3		51	0.90	nw.		1,470	(*)	
						1,250	867.0	−13.8		50	0.92	nw.		1,225	5,410	
10:05	970.6	−12.9	75	nnw.	7.6	1,130	880.9	−13.5	−0.45	49	0.93	nw.		1,108	4,420	
10:08	970.6	−12.7	76	nw.	7.6	998	896.3	−14.1	−1.17	50	0.90	nw.		978	3,340	
10:12	970.5	−12.6	75	nw.	7.6	827	916.8	−16.1	0.90	56	0.83	nw.		811	1,940	
						750	925.9	−15.4		58	0.92	nw.		735		
						500	957.4	−13.1		66	1.13	nnw.		490		
10:25	970.5	−12.2	69	nnw.	6.7	396	970.5	−12.2		69	1.47	nnw.	6.7	388		Few A.St., nw.

(*) More than 10,000 volts.

TABLE 10.—*Free-air data from kite flights at Drexel Aerological Station, December, 1916*—Continued.

December 16, 1916 (No. 1).

Surface.						At different heights above sea.										Remarks.
Time.	Pressure.	Temperature.	Relative humidity.	Wind.		Altitude.	Pressure.	Temperature.	$\frac{\Delta t}{100\ m.}$	Humidity.		Wind.		Potential.		
				Dir.	Vel.					Rel.	Vap. pres.	Dir.	Vel.	Gravity.	Electric.	
A. M.	*mb.*	°*C.*	%		*m. p. s.*	*m.*	*mb.*	°*C.*		%	*mb.*		*m. p. s.*	*10^6 ergs.*	*volts.*	
8:02	955.4	0.2	55	w.	5.4	396	955.4	0.2	.....	55	3.41	w.	5.4	388	.....	6/10 Ci.St., w.
						500	943.0	2.6	.....	53	3.91	wnw.	16.1	490	0	7/10 Ci.St., w.
8:05	955.5	0.2	57	w.	5.8	591	932.6	4.7	−2.31	52	4.44	wnw.	25.5	579	0	Left parhelion of 22° 8:00-8:36.
						750	915.2	3.4	.....	53	4.13	wnw.	31.6	735	0	
8:37	956.2	1.6	45	wnw.	6.7	892	899.4	2.2	0.58	54	3.87	wnw.	37.0	875	0	
						750	915.5	2.7	.....	55	4.08	wnw.	28.5	735	0	
8:51	956.5	1.8	45	wnw.	7.2	656	926.2	3.0	−0.46	55	4.17	wnw.	22.8	643	0	
						500	943.9	2.3	.....	49	3.53	wnw.	13.4	490	0	
8:52	956.5	1.8	45	wnw.	7.2	396	956.5	1.8	.....	45	3.13	wnw.	7.2	388	.....	6/10 Ci.St., w.

December 16, 1916 (No. 2).

P. M.																
12:53	959.4	5.0	55	nw.	8.9	396	959.4	5.0	.....	55	4.80	nw.	8.9	388	.....	5/10 St.Cu., nw.
						500	947.0	4.0	.....	59	4.80	nw.	10.2	490	0	
1:01	959.4	5.2	56	nw.	11.6	750	918.6	1.4	.....	70	4.73	nw.	13.5	735	0	
						805	912.1	0.9	1.00	72	4.69	nw.	14.2	789	0	
						1,000	889.9	−0.8	.....	76	4.34	nw.	18.1	980	700	
						1,250	862.4	−2.9	.....	81	3.89	nw.	23.1	1,225	1,920	
1:18	959.5	5.5	56	nw.	8.5	1,282	859.2	−3.2	0.86	82	3.84	nw.	23.7	1,257	2,200	St.Cu.base at about 1,450 m.
						1,500	836.0	−5.6	.....	77	2.93	nw.	24.7	1,470	2,810	
1:29	959.6	5.8	55	nw.	10.7	1,744	810.5	−6.2	0.65	72	2.61	nw.	25.8	1,709	3,500	
						2,000	784.6	−7.5	.....	52	1.68	nw.	29.2	1,960	4,110	
1:53	959.8	5.4	50	nw.	10.7	2,170	767.2	−8.3	0.56	38	1.15	nw.	31.5	2,127	5,000	1/10Ci.,wnw.; 2/10St.Cu.,nw.
						2,000	784.5	−7.3	.....	40	1.32	nw.	32.0	1,960	4,370	
						1,750	809.8	−5.7	.....	42	1.59	nnw.	32.6	1,715	3,450	
2:23	960.0	4.8	51	nw.	8.9	1,683	816.5	−5.3	0.64	43	1.80	nnw.	32.8	1,650	3,200	3/10Ci.St., wnw.; few St.Cu.,nw.
						1,500	836.0	−4.1	.....	53	2.29	nw.	30.1	1,470	2,580	
2:35	960.2	5.1	50	nw.	7.2	1,322	855.5	−3.0	0.32	63	2.99	nw.	27.4	1,296	1,985	
						1,250	863.5	−2.8	.....	63	3.05	nw.	27.0	1,225	1,740	
						1,000	891.1	−2.0	.....	62	3.21	nw.	25.4	980	910	
2:48	960.3	5.2	50	nw.	6.7	821	910.8	−1.4	1.60	62	3.37	nw.	24.3	805	290	
						750	919.4	−0.3	.....	60	3.58	nw.	21.4	735	70	
						500	948.0	3.7	.....	52	4.14	nw.	11.4	490	0	
2:55	960.4	5.4	49	nw.	7.2	396	960.4	5.4	.....	49	4.40	nw.	7.2	388	.....	3/10Ci.,wnw.; few St.Cu.,nw.

December 17, 1916.

A. M.																
7:51	968.1	−3.6	84	nnw.	4.0	396	968.1	−3.6	.....	84	3.80	nnw.	4.0	388	.....	1/10Ci.St.,w.; 9/10A.St.,w.
						500	955.4	−3.9	.....	85	3.75	nnw.	6.4	490	0	
						750	925.6	−4.7	.....	87	3.58	n.	12.2	735	0	
7:59	968.2	−3.6	84	nnw.	4.0	772	923.2	−4.8	0.32	87	3.55	n.	12.7	757	0	
						1,000	896.6	−5.9	.....	89	3.30	nnw.	11.9	980	880	
						1,250	868.5	−7.2	.....	91	3.02	nw.	11.0	1,225	1,850	
						1,500	841.5	−8.4	.....	93	2.78	nw.	10.2	1,470	2,820	
8:27	968.8	−3.5	82	n.	4.5	1,572	833.8	−8.8	0.50	94	2.72	wnw.	9.9	1,541	3,100	6/10A.St.,w.; 3/10St.Cu.,nw.
						1,750	814.8	−9.6	.....	85	2.29	wnw.	11.7	1,715	3,510	
						2,000	789.2	−10.6	.....	72	1.77	nw.	14.3	1,960	4,080	
8:59	969.6	−3.2	82	nnw.	3.1	2,184	770.7	−11.4	0.42	63	1.44	nw.	16.2	2,140	4,500	
						2,250	764.3	−11.3	.....	60	1.39	nw.	15.9	2,205	4,600	
9:06	969.7	−3.1	82	n.	3.6	2,345	754.8	−11.2	−0.12	56	1.30	nnw.	15.5	2,298	4,740	8/10A.St.,w.; 1/10A.Cu.,w.
						2,500	740.0	−12.0	.....	61	1.32	nnw.	17.0	2,450	5,450	
						2,750	716.2	−13.2	.....	70	1.36	nw.	19.4	2,694	6,600	
9:20	969.9	−3.0	76	n.	3.6	2,984	694.5	−14.3	0.49	78	1.37	nw.	21.6	2,924	7,670	
						3,000	693.1	−14.4	.....	78	1.36	nw.	21.6	2,939	7,830	
						3,250	671.0	−16.0	.....	80	1.20	wnw.	21.8	3,184	10,400	
						3,500	648.8	−17.7	.....	82	1.05	w.	22.0	3,429	12,980	
9:50	970.4	−3.0	68	n.	5.4	3,600	639.6	−18.4	0.58	83	1.00	w.	22.1	3,526	14,000	
						3,500	648.7	−17.9	.....	82	1.03	w.	21.6	3,429	12,910	
						3,250	670.5	−16.7	.....	81	1.14	w.	20.3	3,184	10,190	
10:02	970.6	−3.0	69	n.	4.5	3,037	689.0	−15.7	0.55	80	1.24	w.	19.2	2,975	7,880	
						3,000	692.4	−15.5	.....	79	1.24	w.	19.0	2,939	7,730	
						2,750	715.3	−14.1	.....	70	1.25	wnw.	17.9	2,694	6,690	
						2,500	739.0	−12.8	.....	61	1.23	nw.	16.7	2,450	5,660	
						2,250	764.0	−11.4	.....	52	1.19	nnw.	15.6	2,205	4,620	
10:20	970.7	−2.8	67	n.	5.8	2,130	776.4	−10.7	−0.38	48	1.17	nnw.	15.0	2,087	4,120	
						2,000	789.8	−11.2	.....	50	1.16	nnw.	14.8	1,960	3,770	
10:25	970.7	−2.8	66	n.	5.4	1,759	814.7	−12.1	0.76	54	1.16	nnw.	14.5	1,724	3,120	
						1,750	815.8	−12.0	.....	54	1.17	nnw.	14.5	1,715	3,080	
						1,500	842.6	−10.1	.....	57	1.46	n.	14.8	1,470	2,040	
10:44	970.8	−2.6	66	n.	5.4	1,284	866.6	−8.5	0.43	59	1.75	n.	15.1	1,259	1,140	
						1,250	871.1	−8.4	.....	60	1.79	n.	14.7	1,225	1,060	
						1,000	899.7	−7.3	.....	63	2.07	n.	11.8	980	450	
10:56	970.9	−2.6	58	n.	5.8	814	920.6	−6.5	0.96	66	2.33	n.	9.7	798	0	
						750	928.6	−5.9	.....	65	2.41	n.	9.0	735	0	
						500	958.5	−3.5	.....	61	2.78	n.	6.0	490	0	
11:02	970.9	−2.5	60	n.	4.9	396	970.9	−2.5	.....	60	2.98	n.	4.9	388	.....	9/10 A.St., w.

December 18, 1916.

A. M.																
7:57	969.3	−14.0	100	s.	5.4	396	969.3	−14.0	.....	100	1.81	s.	5.4	388	.....	3/10 Ci., nnw.
						500	956.0	−11.7	.....	91	2.03	ssw.	6.7	490	0	
8:11	969.1	−13.8	100	ssw.	4.0	705	931.0	−7.2	−2.21	72	2.39	sw.	9.4	691	0	
						750	925.8	−7.4	.....	72	2.35	sw.	9.8	735	370	
						1,000	896.0	−8.5	.....	70	2.07	wsw.	12.2	980	2,460	
8:30	968.9	−12.8	100	ssw.	8.0	1,208	872.4	−9.4	0.44	68	1.86	wsw.	14.1	1,184	4,200	7/10 Ci., nnw.
						1,250	867.5	−9.7	.....	68	1.82	wsw.	14.1	1,225	4,500	
						1,500	839.9	−11.5	.....	66	1.50	wsw.	13.9	1,470	6,280	

TABLE 10.—*Free-air data from kite flights at Drexel Aerological Station, December, 1916*—Continued.

December 18, 1916—Continued.

Surface.						At different heights above sea.										
Time.	Pressure.	Temperature.	Relative humidity.	Wind.		Altitude.	Pressure.	Temperature.	Δt 100 m.	Humidity.		Wind.		Potential.		Remarks.
				Dir.	Vel.					Rel.	Vap. pres.	Dir.	Vel.	Gravity.	Electric.	
A. M.	*mb.*	°*C.*	%		*m.p.s.*	*m.*	*mb.*	°*C.*		%	*mb.*		*m.p.s.*	*10⁵ ergs.*	*volts.*	
						1,750	813.0	−13.3	.....	64	1.24	w.	13.7	1,715	8,000	
8:59	968.6	−11.6	92	ssw.	6.3	1,966	789.8	−14.9	0.73	63	1.05	w.	13.6	1,927	9,600	2/10 Ci., nnw.
						2,000	786.7	−15.0	.....	63	1.04	w.	13.8	1,960	10,010	
						2,250	761.3	−16.1	.....	63	0.94	w.	14.8	2,205	13,030	
						2,500	736.0	−17.1	.....	64	0.86	wnw.	15.7	2,450	16,060	
						2,750	712.0	−18.2	.....	64	0.78	wnw.	16.7	2,694	19,060	
9:27	968.3	−9.8	81	ssw.	4.9	2,855	701.5	−18.6	0.42	64	0.76	wnw.	18.3	2,797	20,350	
						3,000	688.3	−17.3	.....	61	0.81	wnw.	16.4	2,939	20,150	
9:31	968.2	−9.6	79	ssw.	5.4	3,083	680.6	−16.6	−0.88	60	0.85	wnw.	15.3	3,021	20,040	2/10 A.Cu., nw.
						3,250	666.1	−16.8	.....	63	0.88	wnw.	17.5	3,184	21,040	
						3,500	644.8	−17.1	.....	67	0.90	wnw.	20.7	3,429	22,530	
						3,750	624.0	−17.5	.....	71	0.92	nw.	23.9	3,673	24,010	
						4,000	603.4	−17.8	.....	75	0.95	nw.	27.1	3,918	25,500	
10:08	967.7	−8.0	74	sw.	6.3	4,063	596.9	−17.9	0.13	76	0.96	nw.	27.9	3,979	25,870	8/10 A.Cu., nw.
10:15	967.5	−7.7	74	sw.	6.7	4,111	593.7	−17.3	−1.42	73	0.97	nw.	31.0	4,026	26,300	
10:27	967.1	−7.4	73	sw.	5.8	4,061	597.9	−18.1	0.14	78	0.96	nw.	20.2	3,977	26,140	
						4,000	603.5	−18.0	.....	79	0.98	nw.	20.8	3,918	25,870	
						3,750	624.2	−17.6	.....	84	1.08	wnw.	23.2	3,673	24,760	
						3,500	644.9	−17.3	.....	88	1.17	wnw.	25.7	3,429	23,650	
11:01	966.2	−6.4	71	sw.	7.6	3,493	645.0	−17.3	0.11	88	1.17	wnw.	25.8	3,422	23,620	
						3,250	666.1	−17.0	.....	85	1.16	wnw.	23.8	3,184	21,640	
						3,000	688.2	−16.8	.....	81	1.13	w.	21.7	2,939	19,590	
11:25	965.5	−5.9	65	sw.	7.6	2,850	701.5	−16.6	0.49	79	1.12	w.	20.5	2,792	18,370	10/10 St.Cu., nw.
						2,750	711.0	−16.1	.....	78	1.16	w.	20.4	2,694	17,410	
						2,500	734.5	−14.9	.....	74	1.24	w.	20.1	2,450	15,050	
						2,250	759.1	−13.6	.....	72	1.35	w.	19.8	2,205	12,680	
						2,000	784.2	−12.4	.....	69	1.44	wsw.	19.6	1,960	10,320	
						1,750	810.6	−11.2	.....	65	1.51	wsw.	19.3	1,715	7,950	
P. M.																
12:08	964.2	−4.3	61	sw.	7.2	1,609	825.2	−10.5	0.86	63	1.56	wsw.	19.1	1,577	6,600	5/10 A.St., nw.; 5/10 St.Cu., nw.
						1,500	837.0	−9.6	.....	60	1.61	wsw.	18.2	1,470	5,960	
						1,250	864.0	−7.4	.....	54	1.76	wsw.	16.3	1,225	4,500	
12:22	963.6	−3.9	59	sw.	8.5	1,203	869.1	−7.0	−0.17	53	1.79	wsw.	15.9	1,179	4,220	
						1,000	891.8	−7.3	.....	60	1.97	wsw.	14.9	980	3,090	
12:33	963.2	−3.6	58	sw.	8.5	792	915.7	−7.7	0.99	68	2.16	sw.	13.9	777	1,930	
						750	921.2	−7.3	.....	67	2.20	sw.	13.4	735	.....	
						500	950.4	−4.8	.....	61	2.49	sw.	10.6	490	.....	
12:41	962.9	−3.8	59	sw.	9.4	396	962.9	−3.8	.....	59	2.62	sw.	9.4	388	.....	10/10 St.Cu., nw.

December 19, 1916.

A. M.																
10:52	960.4	−18.0	100	nne.	6.7	396	960.4	−18.0	.....	100	1.24	nne.	6.7	388	.....	Lt. snow falling; 10/10 St., ne.
						500	947.3	−19.5	.....	100	1.08	nne.	7.9	490	.....	
						750	916.0	−21.6	.....	100	0.88	ne.	10.8	735	.....	
10:56	960.4	−18.3	100	ne.	6.7	802	909.1	−22.1	1.01	100	0.84	ne.	11.4	786	11,000	
						1,000	884.9	−17.0	.....	100	1.37	ne.	9.5	980	19,160	
11:09	960.2	−18.1	100	ne.	6.7	1,162	866.4	−12.9	−3.91	100	2.00	ne.	7.9	1,139	18,410	
						1,250	856.4	−13.0	.....	100	1.98	ne.	6.6	1,225	15,000	10/10 St., ne.
P. M.																
12:01	959.4	−18.0	88	ne.	8.5	1,484	829.8	−13.3	0.02	100	1.93	ne.	3.1	1,455	.....	
12:30	959.2	−18.2	94	ne.	5.8	1,250	856.3	−13.5	.....	100	1.89	ne.	7.0	1,225	10,000	
						1,140	867.7	−13.6	−3.34	100	1.88	ne.	8.9	1,118	9,440	
						1,000	884.5	−18.3	.....	100	1.21	ne.	9.7	980	9,050	
12:37	959.2	−18.2	94	ne.	7.2	856	901.5	−23.1	−1.02	100	0.76	ne.	10.3	839	8,200	
						750	914.9	−22.0	.....	99	0.83	ne.	9.9	735	.....	
						500	945.7	−19.5	.....	95	1.03	ne.	8.9	490	.....	
12:51	959.1	−18.4	94	ne.	8.5	396	959.1	−18.4	.....	94	1.13	ne.	8.5	388	.....	Lt. snow falling; 10/10 St., ne.

December 20, 1916.

A. M.																
9:26	969.4	−22.8	100	n.	5.4	396	969.4	−22.8	.....	100	0.78	n.	5.4	388	.....	10/10 A.St., nnw.
						500	955.5	−23.6	.....	98	0.71	n.	7.8	490	.....	
9:31	969.4	−22.7	92	n.	4.9	650	936.3	−24.7	−0.75	95	0.61	n.	11.3	637	.....	
						750	923.5	−21.8	.....	95	0.82	n.	10.7	735	.....	
9:32	969.4	−22.7	91	n.	4.9	761	922.2	−21.5	2.89	95	0.85	n.	10.6	746	3,300	
						1,000	893.4	−21.2	.....	93	0.85	nne.	7.7	980	.....	
						1,250	863.8	−20.9	.....	91	0.86	ne.	4.6	1,225	.....	
10:27	969.6	−22.3	92	n.	5.4	1,263	861.8	−20.9	0.10	91	0.86	ne.	4.6	1,238	.....	
						1,250	863.7	−20.9	.....	91	0.86	ne.	4.6	1,225	.....	
P. M.																
1:15	968.3	−22.2	100	n.	4.9	1,138	875.5	−21.0	0.52	84	0.78	nne.	4.4	1,116	10,000	5/10Ci.Cu.,nnw.; 1/10A.Cu.,nnw
2:35	969.0	−21.2	100	n.	4.9	1,196	869.2	−20.7	0.06	93	0.89	nw.	2.7	1,172	.....	
						1,000	892.3	−20.8	.....	90	0.86	nnw.	4.4	980	9,810	
2:43	969.0	−21.1	100	n.	4.9	883	906.9	−20.9	2.26	88	0.83	nnw.	5.4	866	7,825	
2:51	969.1	−21.2	100	n.	5.4	750	923.5	−23.9	−0.76	89	0.62	nnw.	8.7	735	4,500	
						500	955.5	−22.0	.....	97	0.81	n.	6.0	490	.....	
2:57	969.2	−21.2	100	n.	4.9	396	969.2	−21.2	.....	100	0.91	n.	4.9	388	.....	4/10 Ci.St., nw.

December 21, 1916.

P. M.																
4:50	970.5	−18.7	69	sse.	2.7	396	970.5	−18.7	.....	69	0.80	sse.	2.7	388	.....	Few Ci.St.
						500	956.4	−19.5	.....	68	0.73	s.	4.5	490	0	
5:30	970.4	−19.4	72	s.	2.2	696	931.8	−21.0	0.77	66	0.61	ssw.	7.9	682	1,930	
						750	925.4	−20.1	.....	66	0.67	ssw.	8.2	735	2,820	
						1,000	895.6	−16.2	.....	68	1.01	sw.	9.6	980	6,960	

TABLE 10.—*Free-air data from kite flights at Drexel Aerological Station, December, 1916*—Continued.

December 21, 1916—Continued.

Surface.						At different heights above sea.										Remarks.
Time. m	Pressure.	Temperature.	Relative humidity.	Wind.		Altitude.	Pressure.	Temperature.	$\frac{\Delta t}{100\ m.}$	Humidity.		Wind.		Potential.		
				Dir.	Vel.					Rel.	Vap. pres.	Dir.	Vel.	Gravity.	Electric.	
P. M.	*mb.*	*° C.*	*%*		*m. p. s.*	*m.*	*mb.*	*° C.*		*%*	*mb.*		*m. p. s.*	*10^5 ergs.*	*volts.*	
						1,250	866.9	−12.2		69	1.47	wsw.	11.0	1,225	.....	
5:56	970.6	−19.8	72	s.	3.6	1,313	858.8	−11.2	−1.59	69	1.61	wsw.	11.3	1,287	(*)	
						1,500	838.2	−12.2	.....	72	1.53	wsw.	11.8	1,470	(*)	
						1,750	810.0	−13.5	.....	76	1.44	wsw.	12.4	1,715	(*)	
						2,000	783.3	−14.9	.....	79	1.32	w.	13.1	1,960	(*)	
						2,250	757.7	−16.2	.....	83	1.23	w.	13.7	2,205	(*)	
6:25	970.5	−20.0	72	s.	3.6	2,370	747.1	−16.8	0.53	85	1.18	w.	14.0	2,322	(*)	
						2,500	733.6	−16.6	.....	92	1.31	w.	16.3	2,450	(*)	
6:40	970.4	−20.4	74	s.	4.0	2,528	731.4	−16.6	−0.13	94	1.33	w.	16.8	2,477	(*)	Cloudless.
						2,750	710.6	−17.9	.....	87	1.10	w.	16.7	2,694	(*)	
						3,000	687.5	−19.0	.....	80	0.90	w.	16.5	2,939	(*)	
						3,250	664.2	−20.0	.....	73	0.75	w.	16.3	3,184	(*)	
7:07	970.3	−21.0	85	s.	3.6	3,270	662.0	−20.1	0.94	72	0.73	w.	16.3	3,203	(*)	
						3,250	664.3	−20.0	.....	72	0.74	w.	16.3	3,184	(*)	
						3,000	688.2	−18.8	.....	73	0.84	w.	16.1	2,939	(*)	
						2,750	711.7	−17.7	.....	73	0.93	w.	16.0	2,694	(*)	
						2,500	735.0	−16.5	.....	74	1.06	wsw.	15.8	2,450	(*)	
						2,250	759.6	−15.4	.....	74	1.18	wsw.	15.7	2,205	(*)	
						2,000	784.6	−14.2	.....	75	1.34	wsw.	15.5	1,960	(*)	
7:40	970.3	−20.7	85	s.	3.6	1,774	808.2	−13.1	0.38	75	1.47	wsw.	15.3	1,739	(*)	
						1,750	810.6	−13.0	.....	75	1.48	wsw.	15.1	1,715	(*)	
						1,500	837.3	−12.1	.....	72	1.55	sw.	13.2	1,470	(*)	
7:51	970.3	−21.0	85	s.	3.1	1,299	860.0	−11.3	−1.72	70	1.62	sw.	11.7	1,273	8,600	
						1,250	865.7	−12.1	.....	69	1.48	sw.	11.7	1,225	7,910	
						1,000	894.7	−16.5	.....	61	0.87	ssw.	11.4	980	4,400	
8:08	970.2	−20.8	84	s.	3.6	788	921.5	−20.1	−0.10	55	0.56	ssw.	11.2	773	0	
						750	925.4	−20.1	.....	57	0.58	ssw.	10.5	735	0	
						500	956.1	−20.4	.....	72	0.71	s.	5.6	490	0	
8:13	970.2	−20.5	78	s.	3.6	396	970.2	−20.5	.....	78	0.76	s.	3.6	388	.....	Cloudless.

December 22, 1916.

A. M.																
8:09	963.5	−14.2	82	s.	6.3	396	963.5	−14.2	.....	82	1.46	s.	6.3	388	.....	7/10 St.Cu., w.
						500	950.0	−14.0	.....	84	1.52	ssw.	8.8	490	.....	
						750	919.3	−13.6	.....	87	1.64	sw.	14.7	735	.....	
8:20	963.5	−14.2	86	s.	4.9	810	912.3	−13.5	−0.17	88	1.66	sw.	16.1	794	3,400	
						1,000	890.2	−3.2	.....	61	2.85	wsw.	14.3	980	6,710	
8:28	963.5	−14.0	82	s.	6.7	1,086	880.9	1.4	−5.40	49	3.31	wsw.	13.5	1,065	8,210	
						1,250	862.5	1.3	.....	40	2.68	wsw.	14.0	1,225	10,030	
8:38	963.5	−14.0	82	s.	4.0	1,338	853.6	1.3	0.04	35	2.35	wsw.	14.2	1,312	11,000	
						1,500	835.8	0.0	.....	39	2.38	wsw.	14.6	1,470	(*)	
						1,750	810.6	−2.0	.....	46	2.38	wsw.	15.3	1,715	(*)	
						2,000	785.9	−4.1	.....	53	2.29	wsw.	16.0	1,960	(*)	
9:05	963.5	−13.6	78	s.	5.4	2,055	780.1	−4.5	0.81	54	2.26	wsw.	16.1	2,019	(*)	
						2,250	761.8	−5.9	.....	56	2.08	wsw.	19.5	2,205	(*)	
						2,500	737.9	−7.6	.....	58	1.86	wsw.	23.8	2,450	(*)	
9:20	963.4	−13.4	81	s.	5.4	2,683	720.0	−8.9	0.70	59	1.69	wsw.	27.0	2,629	(*)	1/10 St.Cu., w.
						2,750	714.6	−9.2	.....	55	1.53	wsw.	26.0	2,694	(*)	
						3,000	691.2	−10.3	.....	40	1.01	w.	22.1	2,939	(*)	
P. M.																
12:15	961.9	−8.6	75	ssw.	5.4	3,127	679.3	−10.9	0.58	32	0.76	w.	20.2	3,063	(*)	3/10 Ci., w.
						3,000	691.0	−10.0	.....	33	0.86	w.	19.8	2,939	(*)	
						2,750	714.0	−8.2	.....	34	1.03	w.	18.9	2,694	(*)	
						2,500	737.0	−6.5	.....	36	1.27	w.	18.0	2,450	(*)	
12:52	961.6	−8.2	77	ssw.	5.4	2,250	760.6	−4.7	.....	38	1.57	w.	17.2	2,205	(*)	5/10 Ci., w.
						2,056	778.9	−3.3	0.65	39	1.81	w.	16.5	2,014	(*)	
						2,000	784.6	−1.9	.....	40	2.09	w.	16.1	1,960	(*)	
						1,750	809.5	−1.3	.....	43	2.36	w.	14.1	1,715	(*)	
						1,500	834.9	0.3	.....	46	2.87	w.	12.1	1,470	(*)	
1:17	961.4	−7.8	71	sw.	4.0	1,292	857.3	1.7	−0.08	48	3.32	w.	10.4	1,267	7,680	
						1,250	861.6	1.7	.....	48	3.32	w.	10.3	1,225	7,360	
1:28	961.3	−7.8	68	wsw.	4.9	1,164	870.9	1.6	−4.17	49	3.36	w.	10.2	1,141	6,700	
						1,000	889.0	−5.2	.....	55	2.17	wsw.	7.8	980	.....	
1:35	961.3	−7.4	66	wsw.	4.9	843	907.2	−11.8	1.03	61	1.35	sw.	5.6	827	.....	
						750	918.0	−10.8	.....	63	1.52	sw.	5.4	735	.....	
						500	948.0	−8.3	.....	68	2.05	wsw.	4.8	490	.....	
1:47	961.2	−7.2	70	wsw.	4.5	396	961.2	−7.2	.....	70	2.32	wsw.	4.5	388	.....	3/10 Ci., w.

December 23, 1916.

P. M.																
1:34	965.1	−9.6	71	e.	5.4	396	965.1	−9.6	.....	71	1.91	e.	5.4	388	.....	3/10 Ci.St.; sw.; 6/10 A.St., sw.
						500	952.0	−10.8	.....	72	1.74	e.	10.0	490	.....	
1:37	965.0	−9.6	73	e.	5.8	547	946.2	−11.4	1.19	73	1.67	e.	12.1	536	.....	
						750	921.4	−6.0	.....	65	2.39	ese.	11.8	735	.....	
1:50	964.7	−9.2	74	e.	5.8	968	896.3	−0.1	−2.68	57	3.45	se.	11.5	949	.....	10/10 A.St., sw.
						1,000	892.6	−0.3	.....	56	3.34	se.	11.5	980	.....	
						1,250	864.6	−1.5	.....	50	2.70	se.	11.4	1,225	.....	
						1,500	838.0	−2.7	.....	44	2.14	sse.	11.2	1,470	5,420	
2:16	964.2	−8.8	68	e.	4.9	1,731	813.7	−3.8	0.48	38	1.69	sse.	11.0	1,697	8,370	5/10 A.St., sw.; 5/10 St.Cu., ssw.
						1,750	812.4	−3.7	.....	37	1.66	sse.	11.0	1,715	8,420	
2:26	964.1	−8.3	67	e.	6.3	1,871	799.5	−2.7	−0.79	29	1.42	sse.	10.8	1,834	8,710	10/10 St.Cu., ssw.
						2,000	786.6	−3.7	.....	32	1.43	sse.	11.1	1,960	8,900	
						2,250	761.8	−5.6	.....	36	1.37	s.	11.6	2,205	9,280	
						2,500	737.6	−7.6	.....	41	1.32	s.	12.0	2,450	9,660	
2:50	963.7	−8.4	71	e.	7.6	2,540	733.9	−7.9	0.78	42	1.31	s.	12.1	2,489	9,720	
						2,750	714.4	−9.7	.....	70	1.87	ssw.	13.6	2,694	.....	
3:19	963.7	−8.0	71	se.	5.4	2,940	697.0	−11.4	0.88	95	2.18	ssw.	15.0	2,880	(*)	St. Cu. to base at about 2,700 m.
						3,000	691.7	−11.5	.....	95	2.16	ssw.	14.9	2,939	(*)	
						3,250	669.6	−12.1	.....	94	2.02	ssw.	14.6	3,184	(*)	

(*) Electric potential more than 10,000 volts.

TABLE 10.—*Free-air data from kite flights at Drexel Aerological Station, December, 1916*—Continued.

December 23, 1916—Continued

Surface.						At different heights above sea.											
Time.	Pressure.	Temperature.	Relative humidity.	Wind.		Altitude.	Pressure.	Temperature.	$\frac{\Delta t}{100\ m.}$	Humidity.		Wind.		Potential.		Remarks.
				Dir.	Vel.					Rel.	Vap. pres.	Dir.	Vel.	Gravity.	Electric.	
P. M.	*mb.*	°*C*	%		*m. p. s.*	*m.*	*mb.*	°*C.*		%	*mb.*		*m. p. s.*	*10⁵ ergs.*	*volts.*	
						3,500	647.5	−12.7		93	1.90	ssw.	14.2	3,429	(*)	
3:35	963.9	−7.9	67	sc.	4.5	3,606	638.3	−13.0	0.22	93	1.84	ssw.	14.1	3,532	(*)	
						3,500	647.3	−12.8		93	1.88	ssw.	14.2	3,429	(*)	
						3,250	668.8	−12.2		93	1.98	ssw.	14.4	3,184	(*)	
						3,000	690.7	−11.7		93	2.07	s.	14.5	2,939	(*)	
3:54	964.1	−8.0	71	se.	5.8	2,810	708.1	−11.3	0.77	93	2.15	s.	14.6	2,753	(*)	
						2,750	713.3	−10.8		89	2.15	s.	14.5	2,694		
						2,500	736.9	−8.9		73	2.08	s.	14.2	2,450		
						2,250	761.6	−7.0		57	1.93	s.	14.0	2,205		
4:03	964.1	−8.0	71	ese.	5.8	2,124	773.8	−6.0	0.55	49	1.80	s.	13.9	2,082	7,800	
						2,000	786.5	−5.3		48	1.88	s.	13.7	1,960	6,940	
						1,750	811.4	−4.0		46	2.01	s.	13.4	1,715	5,200	
						1,500	836.8	−2.6		43	2.12	sse.	13.1	1,470	3,470	
4:14	963.9	−8.0	71	e.	5.8	1,357	852.5	−1.8	0.08	42	2.21	sse.	12.9	1,330	2,470	
						1,250	863.1	−1.7		42	2.23	sse.	13.2	1,225	1,940	
4:22	963.8	−8.2	71	e.	4.0	1,092	881.2	−1.6	−2.27	43	2.30	se.	13.7	1,071	1,150	
						1,000	890.8	−3.7		46	2.06	se.	13.1	980	710	
						750	920.0	−9.4		53	1.45	ese.	11.4	735	0	
4:31	963.6	−8.2	71	e.	5.8	718	924.3	−10.1	0.59	54	1.39	ese.	11.2	704	0	
						500	950.6	−8.8		66	1.91	e.	7.5	490	0	
4:35	963.6	−8.2	71	e.	5.8	396	963.6	−8.2		71	2.16	e.	5.8	388		10/10 St.Cu., ssw.

December 24, 1916.

A. M.																
8:44	962.5	−13.3	100	w.	5.8	396	962.5	−13.3		100	1.93	w.	5.8	388		Cloudless.
						500	956.7	−12.8		99	2.00	w.	6.4	490		
						750	922.0	−11.4		96	2.20	wnw.	7.8	735		
9:04	962.9	−12.8	100	wnw.	6.7	985	891.7	−10.2	−0.53	93	2.37	nw.	9.1	966	4,810	
						1,000	890.4	−9.8		93	2.46	nw.	9.5	980	4,990	
9:07	962.9	−12.9	98	wnw.	6.7	1,194	867.9	−5.0	−2.49	91	3.65	nw.	14.8	1,171	7,310	3/10 St.Cu., nw.
						1,250	860.7	−5.0		88	3.53	nw.	15.7	1,225	(*)	
						1,500	834.4	−4.9		76	3.08	nw.	19.6	1,470	(*)	
						1,750	808.6	−4.8		64	2.61	wnw.	23.5	1,715	(*)	
9:34	963.4	−12.4	95	wnw.	5.8	1,977	786.2	−4.7	−0.04	53	2.18	wnw.	27.0	1,938	(*)	
10:59	964.8	−10.5	93	wnw.	5.4	1,772	808.4	−3.7	−0.49	58	2.60	wnw.	23.8	1,737	(*)	1/10 St.Cu., nw.
						2,000	788.7	−4.9		52	2.11	wnw.	26.7	1,960	(*)	
						2,250	759.7	−6.1		46	1.68	w.	29.8	2,205	(*)	
						2,500	736.5	−7.4		35	1.14	w.	32.9	2,450	(*)	
11:59	965.2	−10.1	87	wnw.	5.4	2,681	720.1	−8.3	0.48	35	1.06	w.	35.2	2,627	(*)	
						2,500	736.7	−7.4		35	1.14	w.	32.4	2,450	(*)	
						2,250	760.6	−6.2		36	1.30	wnw.	28.5	2,205	(*)	
P. M.																
12:36	965.4	−10.0	87	wnw.	6.3	2,123	772.4	−5.6	0.47	36	1.37	wnw.	26.5	2,081	(*)	
						2,000	785.0	−5.0		37	1.48	wnw.	24.8	1,960	(*)	
						1,750	810.5	−3.8		40	1.78	wnw.	21.4	1,715	8,300	Cloudless.
12:51	965.5	−9.8	84	wnw.	7.6	1,594	827.5	−3.1	−0.98	42	1.98	wnw.	19.3	1,562	6,920	
						1,500	837.0	−4.0		52	2.27	wnw.	17.1	1,470	6,170	
1:01	965.5	−9.7	84	wnw.	7.2	1,288	860.5	−6.1	−0.86	76	2.77	wnw.	12.2	1,563	4,200	
						1,250	864.0	−6.4		77	2.74	wnw.	12.1	1,225	3,920	
						1,000	891.6	−8.6		81	2.38	nw.	11.6	980	2,100	
						750	920.7	−10.7		88	2.15	nnw.	11.0	735		
1:17	965.5	−9.7	87	wnw.	5.4	623	937.5	−11.8	0.88	91	2.01	nnw.	10.9	611		
						500	956.8	−10.7		89	2.17	nw.	7.4	490		
1:20	965.5	−9.8	87	wnw.	4.5	396	965.5	−9.8		87	2.30	wnw.	4.5	388		Cloudless.

December 25, 1916.

A. M.																
8:37	964.3	−8.0	80	se.	9.8	396	964.3	−8.0		80	2.48	se.	9.8	388		10/10 St.Cu., sw.
						500	951.7	−5.1		73	2.91	se.	15.4	490		
						750	922.5	2.0		56	3.95	sse.	28.9	735		
8:48	964.3	−7.4	78	se.	11.2	844	911.5	4.7	−0.27	50	4.27	sse.	34.0	828		
						750	922.5	2.2		55	3.94	sse.	29.6	735		
						500	951.8	−4.3		67	2.85	se.	17.9	490		
9:03	964.2	−7.0	72	se.	13.0	396	964.2	−7.0		72	2.43	se.	13.0	388		10/10 St.Cu., sw.

December 26, 1916, series (No. 1).

A. M.																
8:07	953.3	−0.2	67	wsw.	9.8	396	953.3	−0.2		67	4.03	wsw.	9.8	388		4/10 A.St., ssw.
						500	941.0	−1.5		75	4.04	wsw.	10.4	490		
						750	912.0	−4.5		93	3.90	w.	11.7	735		
8:20	953.9	−1.1	77	wsw.	9.8	781	908.6	−4.9	1.22	95	3.85	w.	11.9	766	480	
						1,000	883.6	−2.5		59	2.93	wsw.	17.1	980	710	
8:31	954.4	−1.5	80	w.	9.4	1,166	865.8	−0.6	−1.12	31	1.80	sw.	21.0	1,143	1,700	3/10 St., wsw.
						1,250	856.6	−0.3		29	1.73	sw.	21.5	1,225	1,980	
8:35	954.6	−1.6	81	wsw.	9.4	1,492	831.5	0.6	−0.37	23	1.47	ssw.	22.8	1,463	3,000	
						1,500	830.7	−0.1		24	1.45	ssw.	22.9	1,470	3,000	
						1,750	804.6	−1.6		26	1.39	ssw.	23.0	1,715	3,980	
						2,000	778.6	−3.7		30	1.34	ssw.	23.3	1,960	5,300	8/10 St., wsw.
8:52	954.3	−4.6	88	wnw.	13.9	2,030	775.9	−3.9	0.84	30	1.32	ssw.	23.3	1,989	5,500	
						2,250	755.0	−5.1		21	0.84	s.	23.5	2,205	6,000	
9:23	956.1	−5.4	78	w.	10.3	2,409	740.5	−5.9	0.53	14	0.52	s.	23.7	2,361	7,160	
						2,500	731.8	−5.5		12	0.46	ssw.	21.1	2,450	8,030	
9:28	956.2	−5.6	76	w.	13.4	2,552	726.9	−5.2	−4.41	11	0.43	ssw.	19.7	2,501	8,360	
9:46	956.5	−6.1	79	w.	11.6	2,528	729.1	−7.2	0.83	10	0.33	ssw.	28.8	2,477	8,300	
						2,500	731.9	−7.0		10	0.34	ssw.	28.5	2,450	8,230	

(*) Electric potential more than 10,000 volts.

TABLE 10.—*Free-air data from kite flights at Drexel Aerological Station, December, 1916*—Continued.

December 26, 1916, series (No. 1)—Continued

Surface.						At different heights above sea.											
Time.	Pressure.	Temperature.	Relative humidity.	Wind.		Altitude.	Pressure.	Temperature.	Δt / 100 m.	Humidity.		Wind.		Potential.		Remarks.
				Dir.	Vel.					Rel.	Vap. pres.	Dir.	Vel.	Gravity.	Electric.	
A. M.	*mb.*	*°C.*	%		*m. p. s.*	*m.*	*mb.*	*°C.*		%	*mb.*		*m. p. s.*	*10^5 ergs.*	*volts.*	
						2,250	755.5	−5.0		8	0.32	ssw.	25.5	2,205	7,620	1/10 St., wsw.
10:14	956.9	−7.0	75	w.	10.7	2,120	767.9	−3.9	−0.86	7	0.31	ssw.	24.0	2,078	7,300	
10:27	957.1	−7.4	73	w.	11.6	2,004	779.4	−4.9	0.49	7	0.28	ssw.	25.7	1,964	6,520	
						1,750	804.1	−3.7		10	0.45	sw.	21.4	1,715	5,020	
						1,500	830.7	−2.4		13	0.65	sw.	15.2	1,470	4,250	Few St., wsw.
10:46	957.5	−7.8	71	w.	9.8	1,288	853.4	−1.4	−2.38	15	0.82	wsw.	13.6	1,263	3,600	
						1,250	857.6	−2.3		17	0.86	wsw.	13.6	1,225	3,485	
						1,000	885.5	−8.3		27	0.82	w.	13.5	980	2,685	
11:01	957.7	−7.9	71	w.	9.8	822	906.1	−12.5	1.08	35	0.72	w.	13.5	806	2,115	
						750	914.9	−11.7		41	0.91	w.	12.8	735		
						500	944.8	−9.0		62	1.76	w.	10.4	490		
11:12	957.7	−7.9	71	w.	9.4	396	957.7	−7.9		71	2.22	w.	9.4	388		Cloudless.

December 26, 1916, series (No. 2).

Noon	957.7	−8.0	74	w.	8.9	396	957.7	−8.0		74	2.29	w.	8.9	388		Cloudless.
P. M.																
						500	944.6	−9.1		76	2.14	w.	10.0	490		
						750	914.6	−11.7		82	1.83	w.	12.8	735	2,340	
12:11	957.7	−8.3	71	w.	8.9	842	903.7	−12.6	1.03	84	1.72	w.	13.8	826	3,010	
						1,000	886.0	−6.7		59	2.05	w.	14.1	980	4,170	
12:22	957.7	−8.2	71	w.	8.9	1,141	869.7	−1.5	−3.71	37	1.99	w.	14.3	1,021	5,200	
						1,250	858.8	−2.1		37	1.90	w.	14.5	1,225	5,920	
						1,500	832.0	−3.6		37	1.67	wsw.	14.9	1,470	6,680	1/10 A.Cu., ssw.
2:08	958.5	−8.4	63	w.	8.0	1,713	809.8	−4.8	0.58	37	1.51	sw.	15.3	1,679	10,390	
						1,750	806.4	−5.1		37	1.47	sw.	15.4	1,715	10,730	
						2,000	780.7	−6.7		39	1.35	sw.	15.9	1,960	13,010	
						2,250	756.2	−8.4		41	1.23	sw.	16.4	2,205	15,290	
2:17	958.7	−8.2	64	w.	7.6	2,273	754.0	−8.6	0.68	41	1.21	sw.	16.4	2,228	15,500	
						2,500	732.4	−10.3		39	0.99	sw.	19.5	2,450	16,410	
						2,750	708.9	−12.1		37	0.80	sw.	22.8	2,694	17,410	
2:32	958.9	−7.8	63	wnw.	8.0	2,933	692.2	−13.4	0.73	36	0.69	sw.	25.3	2,874	18,050	
						3,000	685.6	−13.4		33	0.63	ssw.	27.2	2,939	18,140	
2:45	959.2	−8.0	65	nw.	8.0	3,049	681.2	−13.4	0.00	30	0.57	ssw.	28.5	2,987	20,000	
						3,000	685.3	−13.4		30	0.57	ssw.	26.1	2,939	18,150	Few A.Cu., ssw.
2:59	959.4	−8.2	64	wnw.	7.2	2,896	694.4	−13.4	0.56	30	0.57	ssw.	21.1	2,837	18,000	
						2,750	708.3	−12.6		32	0.66	ssw.	20.5	2,694	17,300	
						2,500	731.8	−11.2		35	0.82	ssw.	19.5	2,450	15,630	
						2,250	756.1	−9.8		39	1.03	sw.	18.5	2,205	13,500	
3:25	959.7	−8.2	63	wnw.	6.7	2,026	778.2	−8.5	0.74	42	1.24	sw.	17.6	1,985	11,590	
						2,000	780.6	−8.3		42	1.27	sw.	17.4	1,960	11,370	
						1,750	806.3	−6.5		40	1.41	sw.	15.6	1,715	9,170	
						1,500	832.1	−4.6		38	1.58	wsw.	13.9	1,470	6,950	
3:37	959.8	−8.1	64	wnw.	6.7	1,268	857.2	−2.9	−3.35	36	1.73	wsw.	12.2	1,243	4,900	
						1,250	859.0	−3.5		36	1.64	wsw.	12.1	1,225	4,050	
						1,000	887.2	−11.9		42	0.92	wnw.	10.8	980	2,960	
3:44	959.9	−8.4	62	wnw.	6.7	946	893.5	−13.7	0.80	43	0.80	wnw.	10.5	927	2,570	
						750	916.9	−12.1		53	1.14	wnw.	8.1	735	1,170	
3:50	960.0	−8.6	63	wnw.	6.7	721	920.3	−11.9	1.02	55	1.20	wnw.	7.8	707	950	Cloudless.
						500	947.4	−9.7		60	1.60	wnw.	6.2	490		
3:55	960.0	−8.6	63	wnw.	5.4	396	960.0	−8.6		63	1.85	wnw.	5.4	388		

December 26, 1916, series (No. 3).

P. M.																
4:29	960.4	− 9.1	66	wnw.	6.3	396	960.4	− 9.1		66	1.85	wnw.	6.3	388		Cloudless.
						500	947.6	−10.3		67	1.70	wnw.	7.4	490		
4:39	960.6	− 9.4	69	wnw.	5.4	696	923.8	−12.5	1.13	70	1.45	wnw.	9.6	682	920	
						750	917.0	−13.0		69	1.37	wnw.	9.2	735	1,340	
4:49	960.7	− 9.9	68	wnw.	7.6	960	892.2	−14.9	0.91	64	1.07	wnw.	7.6	941	2,980	
						1,000	887.3	−13.8		62	1.14	wnw.	7.9	980	3,200	
						1,250	859.1	−7.2		46	1.53	w.	10.1	1,225	5,030	
5:05	960.9	−10.3	73	wnw.	6.3	1,333	850.1	−5.0	−2.65	41	1.64	w.	10.8	1,307	5,470	
						1,500	832.1	−6.1		43	1.57	wsw.	12.0	1,470	6,360	
5:16	961.3	−10.5	72	nw.	5.4	1,664	815.3	−7.1	0.63	45	1.51	sw.	13.1	1,631	7,460	
						1,750	806.4	−7.6		45	1.44	sw.	13.9	1,715	8,050	
						2,000	780.6	−9.0		43	1.22	sw.	16.2	1,960	9,800	
						2,250	756.3	−10.3		42	1.06	sw.	18.5	2,205	11,540	
5:26	961.5	−10.6	72	nw.	4.9	2,316	749.6	−10.7	0.55	42	1.02	sw.	19.1	2,269	12,000	
						2,500	732.0	−11.7		41	0.91	sw.	20.6	2,450	13,770	
						2,750	709.1	−13.2		40	0.78	sw.	22.6	2,694	16,200	
						3,000	686.0	−14.6		38	0.65	sw.	24.7	2,939	17,400	
5:47	962.1	−11.0	74	wnw.	4.0	3,042	681.9	−14.8	0.56	38	0.64	sw.	25.0	2,980	17,600	
5:55	962.4	−11.1	74	wnw.	4.0	3,123	674.3	−14.7	−0.12	36	0.61	sw.	21.2	3,060	18,000	
6:10	962.8	−11.2	67	wnw.	5.4	3,035	681.9	−14.8	0.56	36	0.60	sw.	25.3	2,973	16,630	
						3,000	685.3	−14.6		36	0.62	sw.	25.0	2,939	16,090	
						2,750	707.6	−13.2		38	0.74	sw.	23.0	2,694	14,120	
						2,500	731.0	−11.8		39	0.86	wsw.	21.0	2,450	12,900	
6:35	963.5	−11.5	71	wnw.	5.4	2,356	746.2	−11.0	0.46	40	0.95	wsw.	19.8	2,309	12,200	
						2,250	756.4	−10.5		41	1.02	wsw.	19.5	2,205	11,350	
						2,000	781.6	−9.4		44	1.21	wsw.	18.8	1,960	8,890	
						1,750	807.7	−8.2		47	1.43	wsw.	18.1	1,715	6,430	
6:51	963.9	−11.6	69	wnw.	5.4	1,706	811.8	−8.0	0.70	48	1.49	wsw.	18.0	1,672	6,000	
						1,500	834.0	−6.6		42	1.47	w.	16.7	1,470	4,692	
6:59	964.2	−11.7	71	wnw.	5.4	1,462	838.0	−6.3	−4.70	41	1.47	w.	16.5	1,433	4,450	
7:05	964.2	−11.8	71	wnw.	4.9	1,264	859.9	−15.6	0.65	41	0.64	w.	16.2	1,239	3,200	
						1,250	861.6	−15.7		41	0.64	w.	16.3	1,225	3,100	
7:09	964.2	−11.8	68	wnw.	4.5	1,156	872.2	−16.3	0.59	44	0.64	w.	16.8	1,133	2,470	
						1,000	890.1	−15.4		49	0.78	w.	15.0	980	1,433	
7:18	964.2	−11.9	68	wnw.	4.5	785	916.2	−14.1	0.54	55	0.98	wnw.	12.6	770	0	
						750	920.4	−13.9		56	1.02	wnw.	11.9	735	0	
						500	951.4	−12.6		65	1.33	wnw.	7.0	490	0	
7:26	964.2	−12.0	69	wnw.	4.9	396	964.2	−12.0		69	1.50	wnw.	4.9	388		Cloudless.

TABLE 10.—*Free-air data from kite flights at Drexel Aerological Station, December, 1916*—Continued.

December 26, 1916, series (No. 4).

Surface.						At different heights above sea.											Remarks.
Time.	Pressure.	Temperature.	Relative humidity.	Wind.		Altitude.	Pressure.	Temperature.	$\frac{\Delta t}{100\ m.}$	Humidity.		Wind.		Potential.		Remarks.
				Dir.	Vel.					Rel.	Vap. pres.	Dir.	Vel.	Gravity.	Electric.	
P. M.	*mb.*	°*C.*	%		*m. p. s.*	*m.*	*mb.*	°*C.*		%	*mb.*		*m. p. s.*	10^5 *ergs.*	*volts.*	
8:08	964.2	−12.2	69	nw.	3.1	396	964.2	−12.2	.....	69	1.47	nw.	3.1	388	.....	Cloudless.
						500	951.4	−12.6	.....	67	1.37	nw.	5.0	490	0	
						750	920.8	−13.7	.....	62	1.15	wnw.	9.7	735	0	
8:22	964.3	−12.7	76	nw.	3.1	762	919.1	−13.7	0.41	62	1.15	wnw.	9.9	747	0	
						1,000	891.0	−15.0	.....	67	1.11	w.	12.0	980	1,920	
8:34	964.4	−12.8	75	nw.	3.6	1,146	873.8	−15.8	0.55	70	1.07	w.	13.2	1,123	3,100	
						1,250	862.2	−11.3	.....	56	1.29	wsw.	16.1	1,225	3,920	
8:48	964.4	−13.2	80	nw.	3.1	1,353	850.4	−6.8	−4.35	43	1.48	wsw.	19.0	1,326	4,670	
						1,500	834.4	−7.8	.....	42	1.32	wsw.	19.2	1,470	5,740	
8:58	964.5	−13.4	83	nw.	3.6	1,688	814.3	−9.2	0.72	40	1.12	wsw.	19.5	1,654	7,100	
						1,750	808.0	−9.7	.....	41	1.09	wsw.	19.7	1,715	7,610	
						2,000	782.0	−11.6	.....	43	0.97	wsw.	20.3	1,960	9,670	
9:13	964.6	−13.7	83	wnw.	2.7	2,174	764.4	−12.9	0.76	45	0.90	wsw.	20.7	2,131	11,000	
						2,250	757.0	−13.0	.....	45	0.89	wsw.	22.4	2,205	12,910	
9:26	964.6	−13.7	83	wnw.	3.6	2,390	742.9	−13.1	0.12	45	0.88	wsw.	25.5	2,342	.....	
						2,250	756.9	−12.9	.....	44	0.88	wsw.	23.7	2,205	14,040	
9:37	964.7	−13.7	83	wnw.	3.6	2,184	763.3	−12.8	0.69	43	0.87	wsw.	22.8	2,140	13,300	
						2,000	782.0	−11.5	.....	41	0.93	wsw.	22.5	1,960	11,200	
						1,750	808.0	−9.8	.....	38	1.00	wsw.	22.1	1,715	8,350	
10:02	964.8	−13.8	82	wnw.	4.0	1,632	820.3	−9.0	0.28	37	1.05	wsw.	21.9	1,600	7,000	
						1,500	834.5	−8.6	.....	36	1.06	w.	21.0	1,470	6,020	
10:09	964.9	−13.8	79	wnw.	4.0	1,420	843.1	−8.4	−0.43	36	1.08	w.	20.4	1,392	5,180	
10:17	964.9	−13.8	78	wnw.	3.6	1,256	861.4	−9.1	−3.62	34	0.96	w.	20.1	1,231	4,200	
						1,250	862.2	−9.3	.....	34	0.94	w.	20.0	1,225	4,150	
10:23	965.0	−14.0	80	wnw.	3.6	1,049	885.0	−16.6	0.28	37	0.53	w.	15.9	1,028	2,430	
						1,000	891.0	−16.5	.....	38	0.54	w.	16.0	980	2,010	
10:30	965.0	−14.1	82	wnw.	4.0	765	919.1	−15.8	0.54	45	0.69	w.	16.2	750	0	
						750	920.9	−15.7	.....	46	0.71	w.	15.2	735	0	
						500	951.9	−14.4	.....	69	1.20	wnw.	7.8	490	0	
10:39	965.1	−13.8	78	wnw.	4.5	396	965.1	−13.8	.....	78	1.44	wnw.	4.5	388	.....	Cloudless.

December 26-27, 1916, series (No. 5).

P. M.																
11:16	965.3	−13.4	70	wnw.	5.8	396	965.3	−13.4	.....	70	1.34	wnw.	5.8	388	.....	Cloudless.
						500	952.0	−14.1	.....	70	1.25	wnw.	8.3	490	270	
						750	921.0	−15.9	.....	70	1.06	wnw.	14.3	735	920	
11:29	965.3	−13.5	70	wnw.	5.8	773	918.4	−16.1	0.72	70	1.04	wnw.	14.9	758	980	
11:35	965.4	−13.6	67	wnw.	5.8	983	893.1	−17.3	0.57	68	0.90	w.	15.0	964	1,950	
						1,000	891.2	−16.3	.....	66	0.96	w.	15.2	980	2,030	
11:46	965.4	−13.7	66	wnw.	7.2	1,122	876.9	− 9.4	−5.68	48	1.32	w.	16.8	1,100	2,600	
						1,250	862.4	−10.0	.....	48	1.25	w.	18.0	1,225	3,540	
A. M.																
12:03	965.5	−14.1	73	wnw.	5.8	1,455	840.1	−11.0	0.48	49	1.16	w.	20.0	1,426	5,780	
						1,500	835.0	−10.3	.....	47	1.19	w.	22.5	1,470	6,480	
12:17	965.5	−14.3	73	wnw.	6.3	1,598	824.5	− 8.8	−1.53	44	1.27	w.	27.9	1,566	8,000	
						1,750	808.5	− 9.5	.....	41	1.11	w.	28.0	1,715	9,210	
12:36	965.5	−14.4	73	wnw.	5.8	1,786	804.5	− 9.7	0.16	40	1.07	w.	28.0	1,750	9,500	
						1,750	808.6	− 9.8	.....	41	1.08	w.	27.9	1,715	9,230	
						1,500	835.3	−10.2	.....	47	1.20	w.	26.8	1,470	7,230	
1:08	965.6	−15.0	72	wnw.	5.4	1,375	848.6	−10.4	−0.54	50	1.26	w.	26.3	1,348	6,100	
						1,250	862.5	−11.1	.....	48	1.13	w.	22.2	1,225	4,830	
1:23	965.9	−15.1	79	wnw.	5.4	1,081	881.8	−12.0	−4.50	45	0.98	w.	16.6	1,060	3,070	
						1,000	891.2	−15.6	.....	47	0.73	wnw.	16.6	980	2,510	
1:26	965.9	−15.2	77	wnw.	4.5	941	898.2	−18.3	0.30	48	0.58	wnw.	16.6	923	2,030	
1:31	966.0	−15.3	76	wnw.	4.5	775	918.4	−17.8	0.58	53	0.67	wnw.	14.4	760	680	
						750	921.1	−17.6	.....	55	0.71	wnw.	13.4	735	630	
						500	952.4	−16.1	.....	73	1.09	wnw.	7.2	490	190	
1:37	966.1	−15.4	81	wnw.	4.5	396	966.1	−15.4	.....	81	1.29	wnw.	4.5	388	.....	Cloudless.

December 27, 1916, series (No. 6).

A. M.																
2:35	966.9	−15.2	72	wnw.	6.3	396	966.9	−15.2	.....	72	1.17	wnw.	6.3	388	.....	Cloudless.
						500	953.7	−16.2	.....	72	1.07	wnw.	8.2	490	190	
						750	922.4	−18.6	.....	71	0.84	wnw.	12.8	735	650	
2:43	967.0	−15.3	69	wnw.	5.8	761	921.0	−18.7	0.96	71	0.82	wnw.	13.0	746	670	
2:49	967.1	−15.4	71	wnw.	5.8	969	895.8	−19.5	0.38	69	0.75	wnw.	14.3	950	2,240	
						1,000	892.0	−18.4	.....	68	0.82	wnw.	15.1	980	2,690	
2:52	967.1	−15.4	71	wnw.	5.8	1,128	877.0	−13.8	−3.58	63	1.16	wnw.	18.6	1,106	3,540	
						1,250	863.0	−12.6	.....	60	1.23	wnw.	21.5	1,225	4,340	
3:08	967.3	−15.4	71	wnw.	5.4	1,435	842.7	−10.8	−0.98	55	1.33	wnw.	25.9	1,407	5,400	
						1,500	835.6	−10.8	.....	55	1.33	wnw.	26.2	1,470	6,680	
						1,750	809.0	−10.6	.....	54	1.33	w.	27.6	1,715	10,670	
3:25	967.4	−15.7	74	wnw.	4.9	1,790	804.7	−10.6	0.0	54	1.33	w.	27.8	1,754	11,000	
						1,750	809.0	−10.6	.....	54	1.33	w.	27.4	1,715	10,690	
						1,500	835.6	−10.4	.....	57	1.43	w.	24.8	1,470	8,780	
3:45	967.5	−15.6	71	wnw.	5.4	1,424	844.0	−10.4	−1.20	55	1.46	w.	24.0	1,396	8,200	
						1,250	863.0	−12.5	.....	52	1.08	wnw.	22.1	1,225	5,060	
3:56	967.6	−15.6	72	wnw.	5.4	1,208	868.3	−13.0	−3.87	50	0.99	wnw.	21.6	1,184	4,300	
4:11	967.6	−15.8	69	wnw.	5.8	1,035	888.3	−19.7	0.72	54	0.57	wnw.	15.5	1,015	2,300	
						1,000	892.2	−19.4	.....	55	0.60	wnw.	15.3	980	2,020	
4:19	967.6	−15.8	65	wnw.	5.4	745	923.6	−17.6	0.52	61	0.79	wnw.	13.8	730	0	
						500	954.3	−16.3	.....	64	0.93	wnw.	7.6	490	0	
4:26	967.6	−15.8	65	wnw.	5.4	396	967.6	−15.8	.....	65	0.99	wnw.	5.4	388	.....	Cloudless.

December 27, 1916, series (No. 7).

A. M.																
5:09	967.7	−16.2	74	wnw.	5.8	396	967.7	−16.2	.....	74	1.10	wnw.	5.8	388	.....	Cloudless.
						500	954.5	−16.3	.....	74	1.08	wnw.	10.8	490	0	
5:12	967.7	−16.2	74	wnw.	4.5	533	950.2	−16.3	0.07	74	1.08	wnw.	12.4	523	0	

TABLE 10.—*Free-air data from kite flights at Drexel Aerological Station, December, 1916*—Continued.

December 27, 1916, series (No. 7)—Continued.

Surface.						At different heights above sea.										
Time.	Pressure.	Temperature.	Relative humidity.	Wind.		Altitude.	Pressure.	Temperature.	$\frac{\Delta t}{100\ m.}$	Humidity.		Wind.		Potential.		Remarks.
				Dir.	Vel.					Rel.	Vap. pres.	Dir.	Vel.	Gravity.	Electric.	
A. M.	*mb.*	*°C.*	%		*m. p. s.*	*m.*	*mb.*	*°C.*		%	*mb.*		*m. p. s.*	10^5 *ergs.*	*volts.*	
						750	923.2	−18.7	.....	72	0.84	wnw.	13.4	735	0	
5:20	967.8	−16.2	74	wnw.	4.9	770	920.7	−18.9	1.10	72	0.82	wnw.	13.5	755	0	
5:33	967.9	−16.2	74	wnw.	6.3	978	895.4	−19.5	0.29	75	0.81	wnw.	14.0	959	2,160	
						1,000	892.6	−18.7	.....	72	0.84	wnw.	15.2	980	2,390	
6:18	968.3	−16.2	74	wnw.	4.9	1,186	871.6	−11.8	−3.22	52	1.15	wnw.	25.1	1,163	.....	
						1,000	883.4	−16.9	.....	56	0.77	wnw.	18.6	980	2,090	
6:52	968.5	−16.5	74	w.	4.5	912	904.2	−19.3	1.38	58	0.64	wnw.	15.5	894	1,670	
6:57	968.6	−16.5	74	w.	4.0	767	922.0	−17.3	0.52	62	0.82	wnw.	15.8	752	0	
						750	924.0	−17.2	.....	62	0.83	wnw	15.4	735	0	
						500	955.1	−15.9	.....	62	0.94	w.	9.2	490	0	
7:05	968.6	−16.5	74	w.	4.0	480	957.9	−15.8	−0.83	62	0.95	w.	8.7	471	0	
7:09	968.6	−16.5	74	w.	4.0	396	968.6	−16.5	.....	74	1.06	w.	4.0	388	.....	Cloudless.

December 27, 1916, series (No. 8).

A. M.																
7:32	968.8	−16.8	78	w.	3.6	396	968.8	−16.8	.....	78	1.08	w.	3.6	388	.....	Cloudless.
						500	955.4	−16.2	.....	75	1.11	w.	11.0	490	380	
7:33	968.8	−16.8	78	w.	3.6	552	948.9	−15.9	−0.58	71	1.12	w.	14.7	541	420	
						750	924.0	−17.3	.....	72	0.96	wnw.	14.8	735	580	
7:41	968.8	−16.5	74	w.	4.0	708	922.0	−17.4	0.69	72	0.95	wnw.	14.8	753	590	
7:44	968.8	−16.4	74	w.	4.5	966	897.9	−17.5	0.05	72	0.94	wnw.	16.1	947	2,170	
						1,000	894.0	−16.5	.....	71	1.02	wnw.	17.8	980	2,440	
7:53	968.9	−16.5	74	w.	4.5	1,202	870.4	−10.3	−3.10	62	1.57	nw.	27.6	1,178	.....	
						1,000	894.0	−16.6	.....	63	0.89	nw.	18.2	980	.....	
8:01	968.9	−16.3	78	w.	4.5	925	902.9	−19.0	0.65	63	0.71	nw.	14.6	907	.....	
						750	925.0	−17.9	.....	64	0.81	wnw.	13.5	735	.....	
						500	956.0	−16.2	.....	66	0.98	w.	11.8	490	.....	
8:11	969.2	−16.0	72	w.	4.5	465	960.5	−16.0	0.14	66	0.99	w.	11.6	456	.....	
8:13	969.3	−15.9	70	w.	4.5	396	969.3	−15.9	.....	70	1.06	w.	4.5	388	.....	Cloudless.

December 27, 1916, series (No. 9).

A. M.																
8:27	969.7	−15.0	67	w.	4.9	396	969.7	−15.0	.....	67	1.11	w.	4.9	388	.....	Cloudless.
						500	956.8	−15.6	.....	67	1.05	w.	6.9	490	150	
						750	926.0	−17.0	.....	66	0.90	wnw.	11.6	735	520	
9:07	970.7	−14.6	67	w.	5.8	778	922.8	−17.2	0.62	66	0.88	wnw.	12.1	763	565	
						1,000	895.6	−13.9	.....	62	1.13	wnw.	17.6	980	2,710	
9:11	970.8	−14.5	68	w.	5.8	1,030	892.4	−13.4	−1.51	61	1.17	wnw.	18.3	1,010	3,010	
9:18	970.9	−14.4	67	w.	5.4	1,183	874.8	−13.5	0.07	58	1.10	w.	16.1	1,160	4,500	
						1,250	867.0	−12.9	.....	57	1.14	w.	18.4	1,225	5,360	
9:27	971.0	−14.1	66	w.	4.9	1,446	845.3	−11.0	−0.95	56	1.33	w.	25.0	1,417	7,870	
						1,500	839.5	−11.4	.....	58	1.33	w.	24.8	1,470	8,760	
						1,750	813.0	−13.0	.....	66	1.31	wsw.	23.7	1,715	13,110	
10:20	971.7	−12.6	62	w.	6.3	1,819	805.9	−13.5	0.67	68	1.29	wsw.	23.4	1,783	14,000	
						2,000	787.0	−14.0	.....	63	1.14	wsw.	26.0	1,960	17,500	
10:45	971.9	−11.9	65	w.	6.3	2,134	773.4	−14.4	0.34	60	1.04	wsw.	27.9	2,091	.....	
						2,000	787.2	−13.9	.....	59	1.08	wsw.	26.9	1,960	16,000	
						1,750	813.5	−12.9	.....	58	1.16	wsw.	25.2	1,715	11,110	
11:35	971.4	−11.1	68	w.	5.8	1,585	830.8	−12.2	−1.51	57	1.21	wsw.	24.0	1,553	9,000	
						1,500	840.6	−13.5	.....	57	1.08	wsw.	19.1	1,470	8,600	
11:40	971.3	−11.0	68	w.	5.8	1,461	845.3	−14.1	0.14	57	1.02	wsw.	16.8	1,432	8,420	
						1,250	868.4	−13.7	.....	57	1.06	wsw.	15.1	1,225	7,770	
11:55	971.0	−10.5	56	w.	5.8	1,027	893.7	−13.5	−4.34	56	1.06	wsw.	13.4	1,007	7,090	
						1,000	896.8	−14.7	.....	57	0.97	wsw.	10.2	980	6,910	
11:56	971.0	−10.5	56	w.	5.4	974	899.9	−15.8	0.80	57	0.87	wsw.	7.2	955	3,640	
						750	926.7	−14.0	.....	60	1.09	wsw.	8.2	735	1,640	
P. M.																
12:03	970.9	−10.2	56	w.	4.9	710	931.8	−13.7	1.08	61	1.13	wsw.	8.4	696	1,280	
						500	957.5	−11.4	.....	56	1.28	w.	7.9	490	900	
12:10	970.8	−10.3	53	w.	7.6	396	970.8	−10.3	.....	53	1.34	w.	7.6	388	.....	Cloudless.

December 27, 1916, series (No. 10).

P. M.																
1:02	970.3	−8.6	48	w.	7.6	396	970.3	−8.6	.....	48	1.41	w.	7.6	388	.....	Cloudless.
						500	957.0	−9.8	.....	51	1.35	w.	7.6	490	0	
						750	926.5	−12.5	.....	57	1.18	w.	7.6	735	1,190	
1:33	970.3	−8.1	49	w.	7.2	791	921.6	−13.0	1.11	58	1.15	w.	7.6	776	1,670	
						1,000	897.4	−13.5	.....	58	1.10	w.	12.3	980	4,110	
2:41	970.3	−6.7	47	w.	6.3	1,252	867.8	−14.2	0.26	58	1.03	wsw.	18.0	1,227	7,150	
2:45	970.3	−6.5	44	w.	5.8	1,404	850.7	−11.9	−1.51	52	1.14	wnw.	18.7	1,376	9,000	
						1,500	868.8	−12.0	.....	50	1.08	wnw.	20.9	1,470	10,860	
2:54	970.3	−6.3	47	w.	6.7	1,626	826.7	−12.2	0.22	47	1.00	wnw.	23.9	1,594	.....	
						1,500	840.4	−11.8	.....	47	1.04	wnw.	19.7	1,470	10,800	
3:06	970.3	−6.2	48	w.	6.3	1,399	851.9	−11.5	−1.22	47	1.07	wnw.	16.3	1,371	7,000	
3:12	970.3	−6.2	48	w.	5.4	1,208	866.5	−13.1	0.69	48	0.94	wnw.	14.3	1,213	3,500	
						1,250	868.8	−13.0	.....	48	0.95	wnw.	14.1	1,225	3,370	
						1,000	897.4	11.3	.....	48	1.11	wnw.	11.2	980	1,500	
						750	926.5	−9.6	.....	48	1.29	w.	8.4	735	0	
3:41	970.3	−6.0	54	w.	5.4	552	951.0	−8.2	1.28	48	1.46	w.	6.2	541	0	
						500	957.0	−7.5	.....	51	1.65	w.	5.3	490	0	
3:53	970.3	−6.2	56	w.	3.6	396	970.3	−6.2	.....	56	2.03	w.	3.6	388	.....	Cloudless.

December 29, 1916.

P. M.																
3:34	982.1	−5.2	56	se.	4.0	396	982.1	−5.2	.....	56	2.21	se.	4.0	388	.....	1/10 Ci.St., w.
						500	969.2	−6.4	.....	58	2.06	se.	5.9	490	.....	
3:49	982.1	−5.3	53	sw.	4.5	688	946.0	−8.6	1.16	63	1.85	se.	9.3	675	2,300	
						750	938.5	−7.9	.....	58	1.81	sse.	10.3	735	3,420	

TABLE 10.—*Free-air data from kite flights at Drexel Aerological Station, December, 1916*—Continued.

December 29, 1916—Continued.

Surface.						At different heights above sea.										Remarks.
Time.	Pressure.	Temperature.	Relative humidity.	Wind.		Altitude.	Pressure.	Temperature.	$\frac{\Delta t}{100 m.}$	Humidity.		Wind.		Potential.		
				Dir.	Vel.					Rel.	Vap. pres.	Dir.	Vel.	Gravity.	Electric.	
P. M.	*mb.*	°*C.*	%		*m. p. s.*	*m.*	*mb.*	°*C.*		%	*mb.*		*m. p. s.*	10^5 *ergs.*	*volts.*	
3:56	982.1	−5.0	57	sse.	4.0	846	926.9	−6.9	−1.08	52	1.77	s.	11.6	829	4,900	
						1,000	908.5	−7.5		50	1.62	s.	12.7	980	5,690	
						1,250	879.4	−8.5		46	1.36	ssw.	14.5	1,225	6,970	
						1,500	851.7	−9.5		43	1.17	ssw.	16.3	1,470	8,090	
4:10	982.1	−4.9	57	se.	3.1	1,506	851.4	−9.5	0.39	43	1.17	ssw.	16.3	1,476	9,400	
						1,750	825.0	−9.5		43	1.17	ssw.	16.8	1,715	(*)	
						2,000	798.5	−9.4		42	1.15	ssw.	17.3	1,960	(*)	1/10 Cl.St., w.; 1/10 Cl.Cu., wsw.
4:22	982.1	−5.0	52	se.	3.1	2,025	796.2	−9.4	−0.02	42	1.15	ssw.	17.4	1,984	(*)	
						2,250	772.7	−10.4		49	1.23	ssw.	17.8	2,205	(*)	
						2,500	748.0	−11.5		56	1.27	wsw.	18.3	2,450	(*)	
4:41	982.1	−5.8	59	se.	2.7	2,742	725.1	−12.5	0.43	63	1.30	wsw.	18.7	2,687	(*)	
						2,750	724.4	−12.5		63	1.30	wsw.	18.7	2,694	(*)	
						3,000	701.3	−13.6		74	1.40	wsw.	19.9	2,939	(*)	
4:53	982.1	−6.2	62	sse.	2.7	3,155	686.9	−14.2	0.41	81	1.44	wsw.	20.7	3,091	(*)	
						3,250	678.6	−13.7		74	1.38	wsw.	21.0	3,184	(*)	
4:55	982.1	−6.3	62	sse.	2.7	3,324	671.8	−13.3	−0.53	68	1.31	wsw.	21.2	3,256	(*)	
5:10	982.1	−6.8	62	sse.	2.2	3,493	656.9	−15.0	0.77	58	0.96	wsw.	24.9	3,422	(*)	
						3,250	678.6	−13.7		57	1.06	wsw.	20.8	3,184	(*)	
5:16	982.1	−7.2	66	sse.	2.7	3,152	686.9	−13.2	−0.18	57	1.11	wsw.	19.1	3,088	(*)	
						3,000	701.0	−13.5		64	1.21	wsw.	19.1	2,939	(*)	
5:21	982.1	−7.5	70	sse.	2.7	2,926	707.5	−13.6	0.42	67	1.26	wsw.	19.1	2,867	(*)	
						2,750	723.5	−12.9		70	1.40	wsw.	18.9	2,694	(*)	1/10 Cl.St., w.
						2,500	746.7	−11.8		75	1.66	wsw.	18.7	2,450	(*)	
						2,250	771.6	−10.7		79	1.93	ssw.	18.5	2,205	(*)	
5:41	982.1	−8.0	73	se.	1.8	2,001	798.5	−9.7	−0.27	84	2.24	ssw.	18.3	1,961	(*)	
						1,750	825.0	−10.4		62	1.56	ssw.	14.8	1,715	(*)	
5:50	982.1	−8.0	74	se.	1.3	1,704	829.9	−10.5	0.65	58	1.44	ssw.	14.2	1,670	8,600	
						1,500	851.7	−9.2		61	1.70	ssw.	13.5	1,470	6,500	
						1,250	879.5	−7.5		66	2.13	s.	12.6	1,225	4,070	
6:02	982.1	−8.2	74	se.	2.2	1,168	889.3	−7.0	−0.55	67	2.26	s.	12.3	1,145	3,690	
						1,000	908.6	−7.9		68	2.12	s.	11.3	980	2,910	
6:06	982.1	−8.1	74	se.	2.2	857	925.6	−8.7	0.61	68	1.98	sse.	10.5	840	2,240	
						750	938.5	−8.1		68	2.09	sse.	10.2	735	.....	
						500	969.2	−6.5		68	2.40	sse.	9.5	490	.....	
6:19	982.0	−7.9	71	sse.	2.7	478	971.7	−6.4	−1.83	68	2.42	sse.	9.4	469	.....	
6:20	982.0	−7.9	71	sse.	2.7	396	982.0	−7.9	.....	71	2.22	sse.	2.7	388	.....	Cloudless.

(*) More than10,000 volts.

December 30, 1916.

P. M.																
6:23	980.5	−8.6	81	sse.	4.0	396	980.5	−8.6	.....	81	2.38	sse.	4.0	388	.....	Cloudless.
						500	967.4	−7.0	.....	69	2.33	sse.	4.7	490	0	
						750	937.0	−3.2	.....	41	1.92	ssw.	6.3	735	160	
7:07	980.1	−8.5	82	sse.	5.4	838	926.4	−1.9	−1.52	31	1.62	ssw.	6.9	822	250	
						1,000	907.8	−2.3	.....	31	1.56	ssw.	7.7	980	1,180	
						1,250	879.4	−2.8	.....	31	1.50	ssw.	9.0	1,225	1,880	
						1,500	852.2	−3.3	.....	31	1.44	sw.	10.4	1,470	2,580	
						1,750	825.7	−3.9	.....	31	1.37	sw.	11.7	1,750	3,280	
7:29	979.9	−8.5	84	sse.	4.9	1,758	824.6	−3.9	0.22	31	1.37	sw.	11.7	1,723	3,300	
						2,000	799.8	−2.7	.....	24	1.17	wsw.	11.2	1,960	.....	
7:53	979.7	−9.0	84	sse.	4.5	2,053	794.4	−2.4	−0.28	23	1.15	wsw.	11.1	2,012	.....	
						2,000	799.8	−2.4	.....	23	1.15	wsw.	10.9	1,960	.....	
						1,750	825.7	−2.5	.....	25	1.24	wsw.	10.2	1,715	2,200	
						1,500	852.2	−2.7	.....	27	1.32	sw.	9.4	1,470	1,620	
8:03	979.7	−9.0	87	sse.	5.8	1,443	858.1	−2.7	0.17	27	1.32	sw.	9.2	1,415	1,490	
						1,250	879.3	−2.4	.....	28	1.40	ssw.	8.6	1,225	1,052	
						1,000	907.3	−2.0	.....	29	1.50	ssw.	7.9	980	479	
8:13	979.8	−9.2	88	sse.	4.9	846	925.1	−1.7	−1.64	30	1.59	s.	7.5	829	126	
						750	936.0	−3.3	.....	42	1.95	s.	7.1	735	0	
						500	966.0	−7.4	.....	72	2.35	sse.	5.9	490	0	
8:26	979.9	−9.1	84	sse.	5.4	396	979.1	−9.1	.....	84	2.36	sse.	5.4	388	.....	Cloudless.

December 31, 1916.

A. M.																
8:35	973.8	−4.3	84	s.	4.0	396	973.8	−4.3	.....	84	3.58	s.	4.0	388	.....	10/10 St., ssw.
						500	961.0	−3.5	.....	84	3.83	ssw.	8.9	490	.....	
8:40	973.7	−4.3	84	s.	4.0	753	930.9	−1.5	−0.78	84	4.53	sw.	20.7	738	780	Dry snow began.
						1,000	902.0	−2.1	.....	87	4.46	sw.	20.4	980	5,843	
						1,250	873.9	−2.7	.....	90	4.39	sw.	20.1	1,225	11,300	
9:04	973.5	−4.3	88	s.	4.5	1,488	848.3	−3.3	0.24	93	4.32	sw.	19.8	1,459	17,000	
						1,500	846.8	−3.2	.....	93	4.35	sw.	20.0	1,470	17,600	Snowfall heavier.
9:11	973.4	−4.4	91	s.	4.0	1,729	823.0	−1.5	−0.75	96	5.17	sw.	23.4	1,695	29,020	
						1,750	820.9	−1.5	.....	96	5.17	sw.	23.3	1,715	30,070	
						2,000	795.5	−2.0	.....	96	4.96	sw.	21.9	1,960	(†)	
						2,250	770.9	−2.3	.....	95	4.79	sw.	21.1	2,205	(†)	
9:40	972.9	−4.0	98	s.	5.4	2,297	766.0	−2.6	0.19	95	4.67	sw.	20.3	2,251	(†)	
						2,500	746.8	−3.6	.....	95	4.29	sw.	22.4	2,450	(†)	
						2,750	723.4	−4.9	.....	95	3.85	sw.	25.0	2,694	(†)	
10:20	972.3	−3.3	96	s.	6.3	2,917	707.6	−5.8	0.40	95	3.56	sw.	26.8	2,858	(†)	
						2,750	723.2	−5.3	.....	94	3.68	sw.	24.9	2,694	(†)	
						2,500	745.7	−4.6	.....	94	3.90	sw.	22.0	2,450	(†)	Snowfall lighter.
10:58	971.6	−2.8	96	s.	5.4	2,332	761.5	−4.1	0.22	93	4.03	sw.	20.1	2,285	(†)	
						2,250	769.0	−3.9	.....	93	4.10	sw.	20.0	2,205	(†)	
						2,000	793.3	−3.4	.....	94	4.32	sw.	19.8	1,960	(†)	
						1,750	818.3	−2.8	.....	95	4.60	ssw.	19.6	1,715	14,770	
11:30	970.4	−2.8	96	s.	4.5	1,547	839.8	−2.4	0.26	96	4.80	ssw.	19.4	1,516	8,300	
						1,500	844.7	−2.3	.....	96	4.84	ssw.	19.3	1,470	8,130	
						1,250	871.4	−1.6	.....	97	5.19	ssw.	18.9	1,225	7,200	
						1,000	898.8	−1.0	.....	97	5.45	ssw.	18.6	980	5,130	
						750	927.2	−0.3	.....	98	5.84	ssw.	18.2	735	2,140	
11:56	969.4	−2.2	96	s.	4.9	607	933.5	−0.2	−0.60	98	5.89	ssw.	18.1	683	1,500	
						500	956.6	−1.4	.....	95	5.17	s.	9.8	490	.....	
NOON	969.2	−2.0	94	s.	5.4	396	969.2	−2.0	.....	94	4.86	s.	5.4	388	.....	10/10 St., ssw.; light snow.

(†) More than 50,000 volts.